



GOVERNMENT DEGREE COLLEGE, MAHABUBABAD

ESTD: 1984

Affiliated to Kakatiya University

Accredited by NAAC & ISO 9001:2015 Certified

(Mahabubabad, Mahabubabad (Dist.), Telangana-506101).

Website: <https://gdcts.cgg.gov.in/mahabubabad.edu> e-Mail: wgl.jkc.mbad@gmail.com

List of Certificate Courses 2018-2019

Name of the Department	Topic of the Certificate Course	Number of Students participated	Name of the Supervisor
Botany	MUSH ROOM CULTIVATION	23	Dr. T. Ugandhar
Physics	ELECTRONICS IN DAILY LIFE	25	R. Venu Gopal
English	COMMUNICATION SKILLS IN ENGLISH	24	P. Ram Reddy
Mathematics	VEDIC MATHEMATICS	25	T. Narahari
Commerce	Tolly	25	D. Raju
Hindi	COMMUNICATIVE SKILLS IN HINDI	20	Dr. V. Mamatha

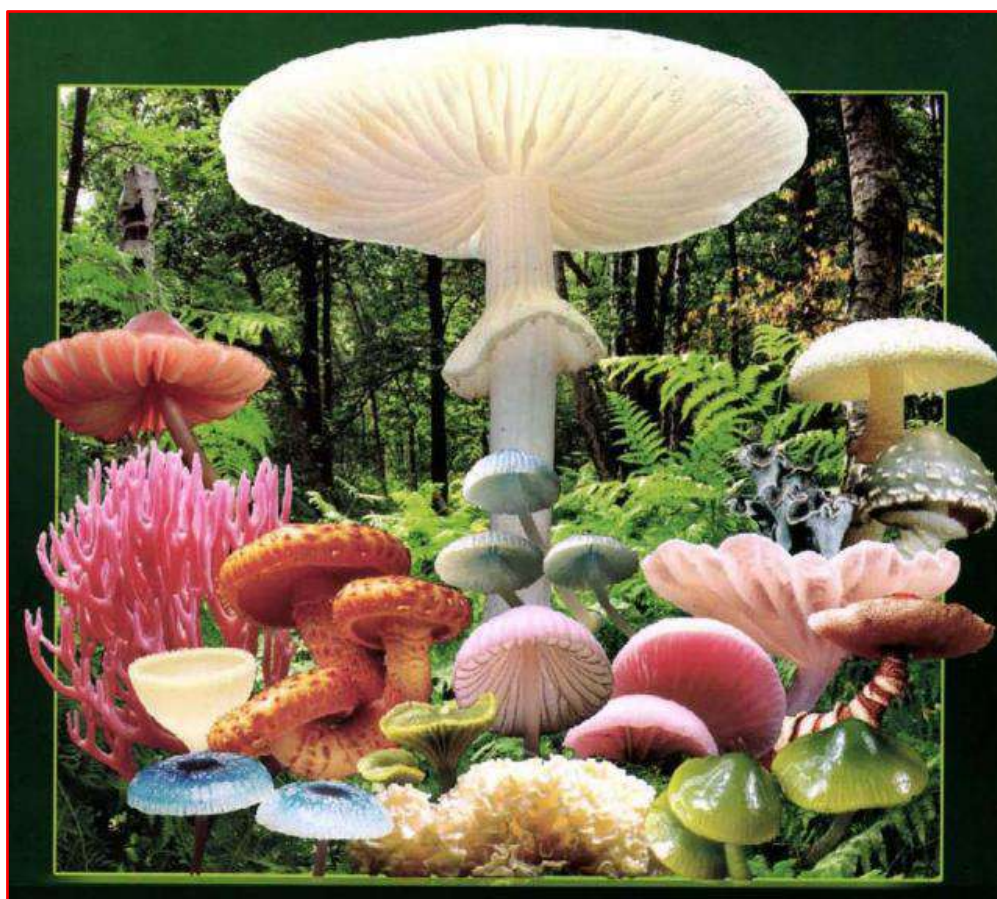
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Hindi	COMMUNICATIVE SKILLS IN HINDI	20	Dr. V. Mamatha
Hindi & Telugu	BEAUTICIAN	25	Dr. V. Mamatha R. Ratnamala
ENGLISH & TELUGU	YOGA & AEROBIC	25	P. Sumalatha R. Ratnamala

MUSHROOM CULTIVATION

CERTIFICATE COURSE

DURING THE ACADEMIC YEAR 2018-2019



Organized by

DEPARTMENT OF BOTANY

GOVT. DEGREE COLLEGE

MAHABUBABAD -506101.

CONTENT

Sl.No	Topics	Periods of Covered
1	Introduction	Two periods
2	General Information & Course Structure	One period
3	Job Roles	One period
4	General Training Plan, Examination & Pass Regulation	Three periods
5	Syllabus Content with Time Structure	Two periods
6	Infrastructure	Two periods
7	Assessment Standard	One periods
8	List of Tools &Equipment	One period
9	Final exam and Certificate Distribution	One period

INTRODUCTION

- The Ministry of Skill Development and Entrepreneurship is an apex organization for the development and coordination of the vocational training including vocational training for women in our country.
- The Ministry conducts the training programmes through the Craftsmen Training Scheme (CTS), Apprenticeship Training Scheme (ATS), Modular Employable Scheme (MES) under the Skill Development Initiative (SDI) Scheme, and Craftsmen Instructor Training Scheme (CITS) to cater to the needs of different segments of the Labour market.
- The National Council for Vocational Training (NCVT) acts as a central agency to advise Government of India in framing the training policy and coordinating vocational training throughout India.
- A majority of Indian workforce does not possess marketable skills which is an obstacle in getting decent employment and improving their economic condition.
- A large number of College drop outs do not have access to skill development for improving their employability.
- The key features of the Modular Employable Skills (MES) are:
 - Short-term training programmes designed in consultation with the Industry.
 - Identification of “minimum skills set” sufficient to get employment.
- ❖ These five domains are (1) Process, (2) Professional knowledge, (3) Professional skill, (4) Core skill, and (5) Responsibility.

2. JOB ROLES

BRIEF DESCRIPTION OF JOB ROLES

- ❖ This course is meant for the candidates who aspire to become a Mushroom Cultivator and get employment accordingly.

GENERAL INFORMATION AND COURSE STRUCTURE

- 1 Qualification:
- 2 Code No. :
- 3 NSQF Level: Level 3
- 4 Duration of Modular Training: **Two Weeks.**
- 5 Entry Qualification: Inter Passed
- 6 Trainees per unit: 22

DISTRIBUTION OF TRAINING ON HOURLY BASIS

Sl.No	Broad Practical components to be covered	Duration (in Hrs.)
1	Mushrooms Introduction	02
2	Benefits & Cultivation	02
3	Procedure for Mushroom cultivation	06
4	Post Harvesting	06
5	Cares and precautions	02
6	Assessment Test	02
7	Grand Test	01
	Total	21

5. General Training Plan, Assessment & Certificate

General Training Plan


- The skills stated in assessment outcome are to be imparted in accordance with the instructions contained within Section in respect of the content and time structure of the Certificate Course (General Training Plan).
- Assessment (Course Team) will appoint assessing bodies to assess the competencies of the trained persons.
- The assessing body will be (Senior Faculty), which will not be involved in conducting the training programmes.
- This, in turn, will ensure quality of training and credibility of the scheme.

- Keeping in view the target of providing training/testing of one million persons throughout the country and to avoid monopoly, more than one assessing bodies will be appointed for a sector or an area. Candidates are to demonstrate that they are able to

1. Plan and organize work processes, identify necessary materials and tools;
2. Perform task with due consideration to safety rules, accident prevention regulations and environmental protection stipulations;
3. Apply professional knowledge and soft skills & entrepreneurship while performing the task.
4. Check the job for accuracy, identify and rectify errors in job.
5. The details of the assessment standard are as per section.

Certificate

Successful persons will be awarded certificates issued by Department of Botany Head, Principal and Senior Faculty



GOVERNMENT DEGREE COLLEGE

MAHABUBABAD - MAHABUBABAD (Dist.), Telangana-506101.


Accredited by NAAC with "B" Grade (CGPA 2.44/4.00)


DEPARTMENT OF BOTANY

Certificate of Participation and Completion


This is to certify that B. LAXMIRAM, B.Sc (BZC) Final Year, GOVERNMENT DEGREE COLLEGE, MAHABUBABAD has participated and successfully completed the certificate course on " Mushroom Cultivation" organised by Department of Botany, Government Degree College, Mahabubabad, Mahabubabad (Dist.), Telangana, India commenced from 01-08-2018 to 28-08-2018.

Certificate generated on November, 06 of 2019.







Dr. T. Ugandhar
Convenor & Asst. Prof of Botany
Government Degree College,
Mahabubabad



Sri. R. Venugopal
IQAC Coordinator
Government Degree College,
Mahabubabad



Dr. G. Poshaiah
Principal & President
Government Degree College,
Mahabubabad



SYLLABUS CONTENT WITH TIME STRUCTURE

8.1 FOR THE MODULE OF MUSHROOM CULTIVATION

Duration: 21 hrs.

Terminal Competency After successful completion of training, the person will be able to: -

- To produce different kind of mushrooms

Detailed Syllabus:

Practical	Theory
Selection and Processing of straw for bed preparation	<ul style="list-style-type: none"> • Knowledge of General Safety, health and hygiene Importance of Mushroom, scope, past, present status & future prospects. • Pros & cons in Mushroom cultivation: why the Mushroom cultivation? Problems in mushroom cultivation & its remedies. • Mushroom for health: ingredients in mushroom, i.e. Protein, Carbohydrate, Fiber, Fat, Vitamins, and Minerals etc. • Types of Mushroom. • Poisonous Mushroom. • Cultivation of Paddy Straw Mushroom and ingredients used • Oyster Mushroom Cultivation and ingredients used. • Milky Mushroom Cultivation and ingredients used. • Button Mushroom cultivation and ingredients used
Sterilization process practice	
Preparation of beds for cultivation of various mushrooms and its maintenance	
Growing and Identification of viable Spawn	
Post Harvesting care and processing Visit to Mushroom farms	
Post Harvesting care and processing Visit to Mushroom farms	Preservation of Mushroom. Economics of Mushroom cultivation.

7. INFRASTRUCTURE

1. Instructors' Qualification	a) NAC in the trade with three years' experience in the relevant field. OR b) Diploma in Agriculture field with two years' experience in the relevant field.
2. Desirable qualification	Preference will be given to candidates with First Grade in Previous course.
3. Space Norms	a) Work shop: 26 Sq. Meter b) Class Room: 20 Sq. Mete
4. Power Norms	4 kW
5. Tools, Equipment & General Machinery	(As per Annexure I

Annexure – 1

I List of Tools & Equipment for module:

MUSHROOM CULTIVATION

For a batch of 20 trainees + 1 Instructor

Sl. No	Item	Quantity	Remarks
1	Measuring tape	05 no	Nil
2	Mushroom Grow Rooms	02	Nil
3	Exhaust Fan	01	Nil
4	Desert cooler	01	Nil
5	Thermometers	02	Nil
6	Hygrometers	02	Nil
7	Luxmeter	02	Nil
8	Box for Mushroom Transportation	01	Nil
9	Straw immersion tank	10	Nil
10	Tulu Pump set	01	Nil
11	. Sprayer	01	Nil
12	Chaff Cutter	01	Nil
13	Bamboo for platform as required	01	Nil
14	Polythene as required	01	Nil
15	Paddy straw as required	01	Nil
16	Chemicals for sterilization and processing as require	01	Nil

8. ASSESSMENT STANDARD

ASSESSMENT GUIDELINE

Appropriate arrangements should be made to ensure that there will be no artificial barriers to assessment.

The nature of special needs should be taken into account while undertaking the assessment. Due consideration shall be given while assessing for teamwork, avoidance/reduction of scrap/wastage and disposal of scarp/wastage as per procedure, behavioral attitude, sensitive to environment and regularity in training. The sensitivity towards OSHE and self-learning attitude shall be considered while assessing competency.

Assessment will be evidence based comprising the following:

- 1) Job carried out in labs/workshop
- 2) Record book/ daily diary
- 3) Answer sheet for assessment
- 4) Viva-voce
- 5) Progress Chart
- 6) Attendance and punctuality
- 7) Assignment
- 8) Project work Evidence of internal assessment should be preserved for an appropriate period of time for audit and verification by examination body.

Certificate Course

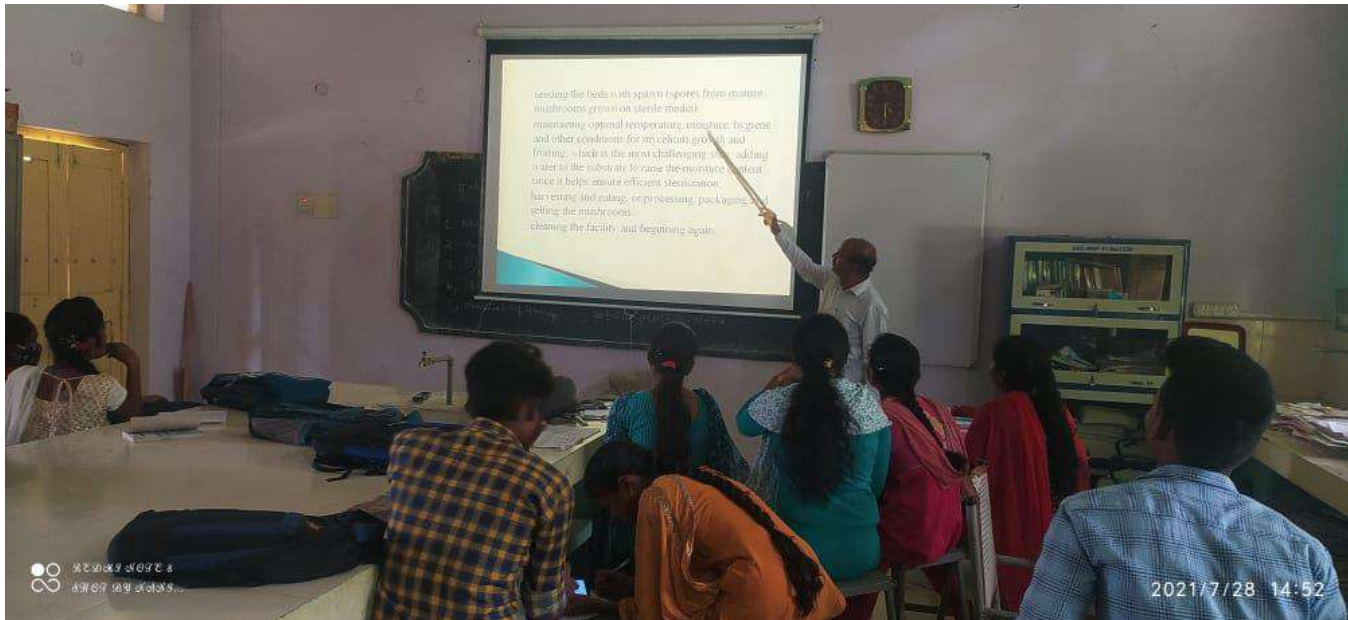
Attendance Register of B.Sc (Final) Year, Class

Roll No.	NAME OF THE STUDENT	Month																													
		A	V	A	U	S	T							21	22	23	24	25	26	27	28	29									
Date		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20										
Sig. of Lecturer		Th	F	M	T	W	Th	F	M	T	W	F	S	M	W	Th	F	M	T	W	F	S	M								
No. of Lectures		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
025-3001	1 Banath Srikanth		1	2	2	3	4	5	5	6	6	7	8	9	10																
3002	2 Bhukya Lakshmi Ram		1	2	3	4	5	6	7	8	9	10	11	11	11																
3005	3 Daida Mallesh		1	2	2	2	3	3	4	4	4	5	6	6	7																
3006	4 Naravath Poornima		1	2	3	4	5	5	5	6	7	8	9	9	10																
3008	5 Guguloth Vijay		1	2	3	4	5	6	6	6	7	8	9	10	11																
3009	6 Guguloth Rameya		1	2	3	4	4	4	5	6	6	7	8	8	8																
3010	7 Gundepaka Umesh		1	2	2	2	2	2	3	3	3	4	5	6	7																
3014	8 Kithula Renuka		1	2	3	4	4	5	6	6	7	8	9	9	10																
3017	9 Mogulagani Sandeep		1	2	3	4	5	6	6	7	8	8	9	9	10																
3018	10 Mudaveer Shailaja		1	2	2	2	3	3	4	4	4	5	6	6	7																
3020	11 Ponaka Prashanth		1	2	2	2	2	2	3	4	5	6	6	7																	
3022	12 Sanapa Prakash		1	2	3	4	5	6	6	7	8	9	10	10	11																
025-18	13 Banala Praveen		1	2	3	4	5	6	6	7	8	9	9	10																	
3501	14 Chinthirala Prathyusha		1	2	3	3	4	4	5	6	7	8	8	9		1	10	11	11	12	1										
3503	15 Emugurthi Manohar Babu		1	2	3	4	4	5	6	7	8	9	9	10		1	11	12	13	14	1										
025-18	16 Arepalli Sai Kumar		1	2	3	3	4	4	5	6	7	8	8	9			10	11	14	15	1										
3203	17 Banath Sriram Gowtham		1	2	3	4	5	6	7	7	8	9	10	10	11																
3204	18 Banaganani Usharani		1	2	3	3	4	5	6	6	6	7	8	8	8																
3205	19 Guduru Madhavi		1	2	3	3	4	4	5	6	6	6	6	7																	
3208	20 Guguloth Rajitha		1	2	3	3	3	4	5	6	6	6	7	8	9																
3209	21 Karimkonda Anil		1	2	3	3	4	4	5	6	6	7	8	8	9																
3210	22 Taduru Manaswini		1	2	3	4	5	6	6	7	8	9	10	11	12																
3214																															

guy — k







- Edible Mushroom Research shows which willbotenic acid will create an hallucinogenic effect in human beings, at doses as small as 50mg.
- The onset of all these effects may be rapid or maybe quite slow, ranging from 30 minutes to 2-3 working hours, depending on body type, vulnerability, habituation, and the circumstances for ingestion.
- The amanita muscaria themselves, bright red through white spots, usually are gathered for habituse in these tradition during the hottest a few months of the year - July plus August - when they are nearly all infused with the element of fire and the breath of air of the sun/Sky Father. The strongest mushrooms, in fact, are said to help dry themselves, prepared to be picked with regard to communion with man.
- These are considered considerably stronger than those picked quick and dried artificially. Smaller mushrooms are also told have much greater strength than larger varieties, and it seems most likely, from modern trial and error, that their narcotic effects are certainly more extreme during the early thriving phase.
- In the place of worship of Plaincourault Abbey in Indre, Germany is a fresco painted with 1291 A.D. involving Adam and Eve running on either side of the forest of knowledge of good

along with evil. A serpent is entwined around the pine, which looks unmistakably like a cluster of Amanita Muscaria mushrooms.

- Might it be true that the apple mackintosh from the Garden from Eden may actually have been some sort of hallucinogenic mushroom
 - Traditionally, the act of hunting for these species may be passed from down the family forcing young ones to grow able to differentiate this poisonous and nonpoisonous species.
 - Nevertheless this method is not a assure that everything will likely be OK.
 - An passable species on one vicinity could be poison in other people. Knowledge and experience is the best guarantee. Only an expert should be trusted in. People flourish on soils, wood and in favorable surfaces not as plants but as fungus infection.
1. It is very important to wash palms immediately after touching a dangerous species type. Be sure the right cooking way for you to avoid poisoning. Pay attention to your children for most belonging to the cases they are the subjects. Do not eat it untamed species just because you can see it look delicious. Most deaths appear due to mixed i.d. It seems that there is also a symbiotic relationship between the fly-agaric mushrooms additionally, the birch tree the mushrooms raise in the shade with the tree which would be the cause of the sacred birch practice in European shamanism. In her book, *Ploughing the Atmosphere*, however, Peter Lamborn Wilson proposes convincingly that fly-agaric is not just the sacred Soma referenced in the Rg Veda, but which it was used in many The European countries and was also central to the Irish Keltic tradition of shamanism, which still keeps in its basic style, today.
 2. For non-ritual usage, the mushrooms are used with much the same way as coca results in in the Peruvian Andes, to create a soft shift in consciousness, in conjunction with mild euphoria along with increased energy.
 3. In such usage, the mushrooms are just rolled into a soccer ball and swallowed complete, without chewing. Just one larger mushroom (3-4cm) or 2-3 modest ones is enough.
 4. Inside German language, the mushroom was thought to be a powerful insecticide, when it is found in combination with milk. Within 1256 Albertus Magnus was cited designed for his comment; "It is known as the mushroom of flies, because crushed with milk it destroy flies. The names of funguses, dates back on the year 1750. During this time, Linnaeus as well as Lamarck were responsible for naming the mushroom *amanita muscaria*.

5. One mycologist (one that studies fungus) claimed that bug agaric ended up being an ancient name, along with the mushroom was used in freeing bugs in Sweden, and in England. Amanita



Types of Mushrooms



Oyster Mushroom



Straw Mushroom



Reishi Mushroom



Enokitake Mushroom



Shitake Mushroom



Wood Ear Mushroom

Types of Mushrooms

White button

The most popular mushroom, white buttons represent about 90 percent of mushrooms consumed in the United States.



Crimini

Also known as baby 'bellas or browns, criminis are similar in appearance to whites, but have a light-tan to rich-brown cap and a firmer texture.



Portabella

A larger relative of criminis, Portabellas have tan or brown caps and measure up to 6 inches in diameter.



Shiitake

Shiitakes are tan to dark brown and have broad, umbrella-shaped caps, wide open veils, tan gills and curved stems that should be removed.



Oyster

Oysters can be gray, pale yellow or even blue, with a velvety texture.



Enoki

Enoki have tiny, button-shaped caps and long, spindly stems.



Beech

Beech mushrooms are petite with either all-white or light-brown caps.



Maitake

Maitake appear rippling and fan-shaped, without caps. They are also called "Hen of the Woods."



What Is the Nutritional Value of Mushrooms?

❖ Mushrooms are low in calories, high in fiber, and contain many important vitamins and minerals. Some also have medicinal properties such as complex carbohydrates that strengthen the

They are an excellent source of protein. In some regions they are known as vegetable meat for their high protein content. They contain all the essential amino acids needed for your body.

The percentage of protein in dry mushrooms could be between 10% and 30% of the total mushroom weight.



They have a high concentration of carbohydrates at 57% and 14% raw fiber. Most of those carbohydrates are complex sugars that will help you regulate insulin and sugar levels because they are low-glycemic sugars.

Nutritional Value of Mushrooms

- ❖ **Protein** - Most mushrooms have a high protein content, usually around 20-30% by dry weight.
- ❖ **Fiber** - Helps lower cholesterol and is important for the digestive system.
- ❖ **Vitamin D** - Essential for the absorption of calcium.
- ❖ **Copper** - Aids in helping the body absorb oxygen and create red blood cells.
- ❖ **Selenium** - An antioxidant that helps neutralize free radicals, thus preventing cell damage and reducing the risk of cancer and other diseases. Mushrooms contain more selenium than any other form of produce.
- ❖ **Potassium** - An extremely important mineral that regulates blood pressure and keeps cells functioning properly
- ❖ **Other important minerals** - Such as phosphorous, zinc, and magnesium.
- ❖ **Low levels of fat, calories, and sodium**
- ❖ **No cholesterol**

Edible Mushroom

- ❖ Edible mushrooms are consumed by humans for their nutritional value and they are occasionally consumed for their supposed medicinal value.
- ❖ Edibility may be defined by criteria that include absence of poisonous effects on humans and desirable taste and aroma .
- ❖ Edible mushrooms include many fungal species that are either harvested wild or cultivated



Agaricus bisporus :

- ❖ Also known as 'the white cultivated mushroom'. *Agaricus bisporus* is grown on composted cereal straw and animal manure.
- ❖ *Agaricus bisporus* is the most extensively cultivated mushroom in the world, accounting for 38% of the world production of cultivated mushrooms.

Volvariella volvacea :

- ❖ The 'Chinese' or 'paddy straw' mushroom. *Volvariella volvacea* is a high temperature mushroom grown largely in tropical and subtropical regions of Asia e.g. China, India.
- ❖ This mushroom can be grown on a variety of agricultural wastes *Volvariella* mushrooms account for 16% of total production of cultivated mushrooms in the world.

Poisonous Mushrooms

❖ Poisonous Mushrooms look like edible mushroom in their morphology and lifecycle. However They can be distinguished by following features:

- ❖ Brightly coloured fruit bodies.
- ❖ Greenish tinge on gills and Yellow-Green spores.
- ❖ Pink coloured spores in gills.
- ❖ Presence of Vulva and Annulus on the Stalk.
- ❖ Oozing of milky or coloured latex at damaged portions
- ❖ Unpleasant odour

E.g. *Amanita phalloides*
Tricholoma muscarium





GOVT. DEGREE COLLEGE MAHABUBABAD
FINAL ASSESSMENT EXAMINATION - AUG-2018
B.SC. (CBCS) BOTANY- III YEAR
(CERTIFICATE COURSE FOR MUSHROOM CULTIVATION)



Time-1hr

Name: -

Max Marks-25

Class:-

Hall Ticket No:-

Answer the questions by putting the chosen letter in the box on the answer sheet or by circling the correct letter. 25X1=25

1. To which division does it belong?
 A. Basidiomycetes B. Pteridophyta C. Thallophyta D. Mollusca ()
2. Mushroom is:
 A. Saprophyticfungus B. AutotrophicAlgae C. Heterotrophicfungus D. None of the above ()
3. Mycelium produces white or colored umbrella shaped fruiting bodies called: ()
 A. Haphae B. Basidiocarp C. Annalus D. Seta
4. Basidiocarp consist of a fleshy stalk called _____ and umbrella like head borne on its top called _____
 A. Hyphae and Seta B. Seta and Annalus C. Annalus adn Antheridia D. Stipe and Pileus ()
5. When young fruiting body is completely enveloped by a thin membrane, it is called _____
 A. Mycelium B. Rhizoid C. Velum (veil) D. Septate ()
6. With the growth of _____ velum gets ruptured, while a part of it remained attached to stipe in the form of ring or _____. A. Basidiocarp and Slender B. Pileus and Annalus C. Pyrenoid and Conjugation D. Hyaline and Pyrenoid ()
7. On the lower side of Pileus number of vertical plates like structure are present called _____
 A. Spores B. Organelles C. Mushroom Dryopteris D. Gills ()
8. The gills on either sides bear club shaped basidia which produce _____
 A. Basidiocarp B. Chloroplasts C. funaria D. None of these ()
9. It grows during _____
 A. Summer season B. Winters C. Rainy season D. all seasons ()
10. One of the best edible species mushrooms under
 A. Sahiwal B. Kasur C. Jhang D. Lahore ()

11. One of the edible species mushrooms under cultivation
A. *Valvaria volvacea* B. *Amanita maesaria* C. *Armillariella mellea* D. *Amanita phalloides* ()
12. Mushroom cultivation is not useful in
A. recycling in agricultural waste B. biogas production C. biological control of crop production D. Preventing cancer ()
13. Which pair belongs to basidiomycetes
A. Puffball and *Claviceps* B. *Peziza* and Stink Horn C. *Morchella* and Mushroom D. Bird Nest Fungus and Puffball ()
14. Zygospore of *Mucor* is ()
A. Haploid B. Thick-wall resting spore C. Asexual spore D. Spore that germinates to form zoospores.
15. Which is not found in mushroom ()
A. Eukaryotic structure B. Dikaryotic mycelium C. Basidiospores D. Ascospores
16. Coenogametes are formed in ()
A. *Alternaria* B. *Albugo* C. *Rhizopus* D. *Saccharomyces*
17. Among rust, smut and mushroom, all the three ()
A. Are pathogens B. Are saprobes C. Bear ascocarps D. Bear basidiospores
18. St. Anthony's fire disease is caused by ()
A. Bacteria B. Fungus C. Nematode D. Polychaet
19. *Claviceps purpurea* grows as parasite ()
A. In human gut B. In sugarcane roots C. On pine needles D. On fruits of grasses
20. Purified antibiotic Penicillin of *Penicillium notatum* was obtained by ()
A. Alexander Fleming B. Howard Florey C. Robert Hooke D. *Carolus Linnaeus*
21. Which one is an edible fungus? ()
A. *Mucor* B. *Agaricus* C. *Penicillium* D. *Rhizopus*
22. Edible part of Mushroom is ()
A. Basidiocarp B. Primary mycelium C. Basidiospores D. Fungal hyphae
23. The deadliest mushroom is ()
A. *Agaricus* B. *Amanita* C. *Pleurotus* D. *Volvariella*
24. Antihemorrhagic ergot alkaloids are got from ()
A. *Cinchona* B. Alga C. Bryophyte D. Fungus
25. Ventilation of mushroom bags are meant to the proper..... ()
A. Aeration B. Mineralization C. both a & b D. none of the above

ELECTRONICS IN DAILY LIFE

CERTIFICATE COURSE

DURING THE ACEDMIC YEAR 2018-2019



Organized by

DEPARTMENT OF PHYSICS

GOVT. DEGREE COLLEGE

MAHABUBABAD -506101.

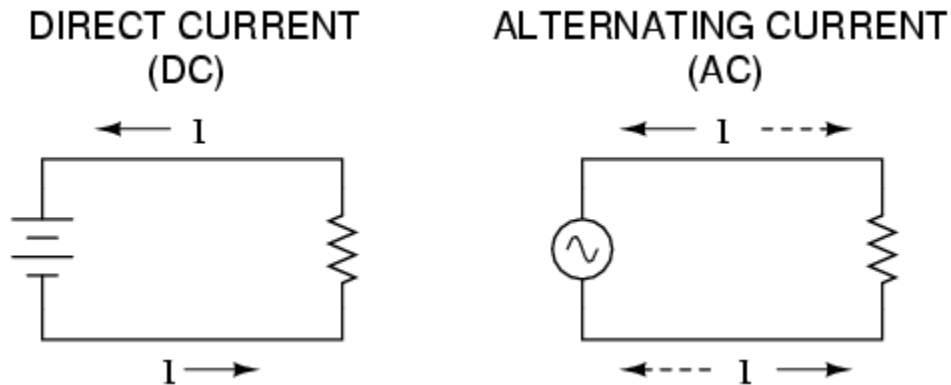
Electronics in daily life

UNIT – I: Basics of Electronics

Electric current:

Definition: Electrical current is a measure of the amount of electrical charge transferred per unit time. It represents the flow of electrons through a conductive material.

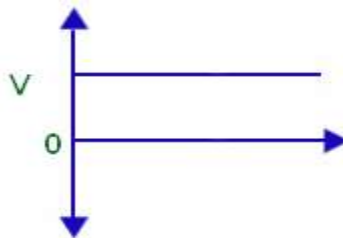
Current is a scalar quantity. The SI unit of electrical current is the ampere, defined as 1 coulomb/second. There are two types of currents: 1) Direct current (DC) : Direct current (DC) is the unidirectional flow of electric charge. 2) Alternating Current (AC): In alternating current (AC, also ac), the movement of electric charge periodically reverses the direction.



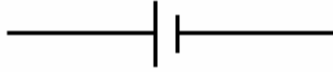
Direct Current (DC)

If the current flows always in the same direction, it is called Direct current. Direct current is represented as DC or dc. The current derived from a cell or a battery is direct current - since it is unidirectional. The positive and negative terminals are fixed, or it is having single polarity.

The DC current is represented as below:



The dc source is represented as below:



The direct current can be obtained from the A.C. using rectifier which converts the bidirectional current to the unidirectional current.

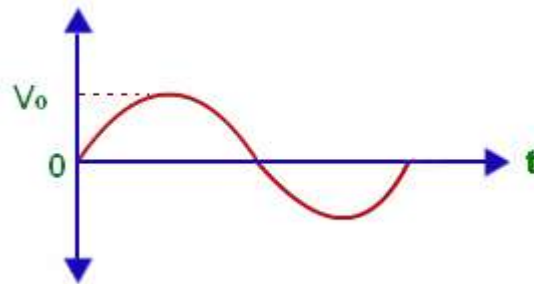
The A. C. can be obtained from the D. C. using inverter which inverts the unidirectional (D.C.) current to bidirectional (A.C) current.

Application: The inverters are used in household for the backup of the electricity supplied by the government.

Alternate Current (AC)

If the current changes direction after equal intervals of time, it is called as alternating current. Alternating current can be written as AC or ac.

Ac waveform is represented as follows:



A frequency is associated with the alternating current (A.C) is called Alternating Frequency. This frequency is the rate at which current changes its direction with respect to time.

The source used for ac current is represented as:



Example for A.C: If the current is of 50 Hz then it means that the current changes its direction 50 times per second.

Application: Most of the power stations generate alternating current.

Sources of Current:

There are several different devices that can supply the voltage necessary to generate an electric current. The two most common sources are generators and electrolytic cells.

Generators:

Generators use mechanical energy, such as water pouring through a dam or the motion of a turbine driven by steam, to produce electricity. The electric outlets on the walls of homes and other buildings, from which electricity to operate lights and appliances is drawn, are connected to giant generators located in electric power stations. Each outlet contains two terminals. The voltage between the terminals drives an electric current through the appliance that is plugged into the outlet.

Electrolytic Cells:

Electrolytic cells use chemical energy to produce electricity. Chemical reactions within an electrolytic cell produce a potential difference between the cell's terminals. An electric battery consists of a cell or group of cells connected.

Cell or Battery:

A cell is a device that transforms chemical energy into electrical energy. The cell is the fundamental unit of the battery. A battery consists of one or more electrochemical cells, electrically connected in an appropriate series/parallel arrangement to provide the required operating voltage and current level.

Types of Cells or Batteries:

There are many kinds of batteries. The role of all batteries is exchanging of energy. Battery is the device to exchange energy from chemical or physical to electrical. The battery that uses chemical reaction is called chemical battery and the battery that use physical change is called physical battery.

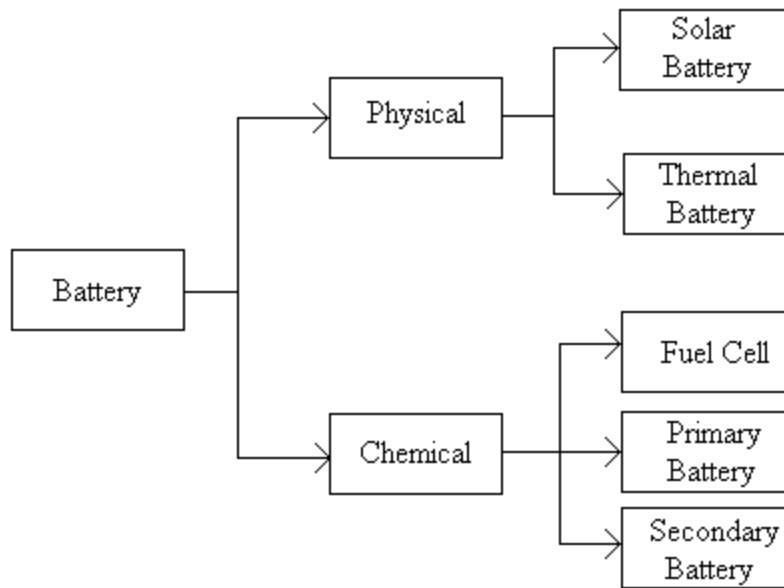


Fig: Classification of Batteries

There are three types of chemical batteries such as primary (non-rechargeable) batteries that can only one time use, secondary (rechargeable) batteries that can use repetitive by recharge and fuel cells that can continuously use if energy supply from outside. There are two types of physical batteries such as solar battery that can convert light into electricity and thermal battery that can deliver the energy when its electrolyte is activated.

Primary Cells or Batteries

A **primary cell** or battery is one that cannot easily be recharged after one use and are discarded following discharge. Most primary cells utilize electrolytes that are contained within absorbent material or a separator (i.e., no free or liquid electrolyte), and are thus termed dry cells.

The primary battery is a convenient, usually inexpensive, lightweight source of packaged power for portable electronic and electric devices, lighting, photographic equipment, toys, memory backup, and a host of other applications, giving freedom from utility power.

The general advantages of primary batteries are good shelf life, high energy density at low to moderate discharge rates, little, if any, maintenance, and ease of use.

Secondary (Rechargeable) Cells or Batteries

A secondary cell or battery is one that can be electrically recharged after use to their original pre-discharge condition, by passing current through the circuit in the opposite direction to the current during discharge. These are storage devices for electric energy and are also known as "storage batteries" or "accumulators."

The applications of secondary batteries fall into two main categories:

- Cells that are utilized as energy storage devices, delivering energy on demand. Such cells are typically connected to primary power sources to be fully charged on demand. Examples of these type of secondary cells include automotive and aircraft systems, emergency no-fail and standby (UPS) power sources, hybrid electric vehicles and stationary energy storage (SES) systems for electric utility load-leveling.
- Cells that are essentially utilized as primary cells but are recharged after use rather than being discarded. Examples of these types of secondary cells primarily include portable consumer electronics, power tools and electric vehicles.

Fuel Cells or Batteries:

Fuel cells are similar to batteries except for the fact that all active materials are not an integral part of the device (as in a battery). In fuel cells, active materials are fed into batteries from an outside source. The fuel cell differs from a battery in that it possesses the capability to produce electrical energy as long as active materials are fed to the electrodes but stop operating in the absence of such materials. A well-known application of fuel cells has been in cryogenic fuels used in space vehicles. Use of fuel cell technology for terrestrial applications has been slow to develop, although this technology is used in certain applications such as utility power, load-leveling, on-site generators and electric vehicles.

Thermal cells or Batteries:

A thermal battery is an exceptionally reliable source of specific energy. It is a non-rechargeable, single use battery that is completely inert before being activated.

It can be stored without requiring maintenance for more than 15 years and then brought into use at any time, requiring only several tenths of a second before it is ready for

use. Activation is effected internally either by mechanical or electrical ignition. Certain batteries can also be activated automatically, for example through an accelerating effect or a sudden increase in temperature.

It can function under severe climatic and mechanical environments. Also, it can bear high stresses, sudden shocks and sharp pressure drops. These batteries are exclusively used for military applications.

Solar cells or Batteries:

The solar cells that are seen on calculators and satellites are also called photovoltaic (PV) cells, which as the name implies (photo meaning "light" and voltaic meaning "electricity"), convert sunlight directly into electricity.

Photovoltaic cells are made of special materials called semiconductors such as silicon, which is currently used most commonly. Basically, when light strikes the cell, a certain portion of it is absorbed within the semiconductor material. This means that the energy of the absorbed light is transferred to the semiconductor. The energy knocks the valance electrons, allowing them to flow freely.

PV cells also all have one or more electric field that acts to force electrons freed by light absorption to flow in a certain direction. This flow of electrons is a current, and by placing metal contacts on the top and bottom of the PV cell, we can draw that current off for external use, say, to power a calculator.

Accessories used in house wiring:

Holders:

A bulb holder is often called a lamp holder. A bulb holder is a device that holds a bulb. The bulb holder is where the bulb fits.

The bulb fits into the bulb holder, the bulb holder 'holds' the bulb. The bulb holder contains the electrical connection from the supply to the bulb. The metal end of the bulb comes into contact with the supply when the bulb is screwed into the bulb holder.

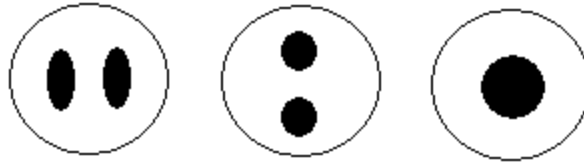


Fig : Different types of electrical contacts

The electrical contacts are inside the bulb holder at the top of the bulb holder. The different types of bulb holder electrical contact will 'match' the electrical contact on the bulb. The electrical contact is usually made from copper.

Fuses:

The verb "fuse" means "to melt". A fuse is an over current responsive safety device used to protect an electrical circuit from the effects of excessive current. It is placed in series with the electrical circuit it is intended to protect. Its essential component is a strip of metal that will melt when the electric current in the circuit exceeds the fuse's rated value. The element (link) in the fuse melts and opens the circuit.

If there were no fuse in the circuit, serious damage could be caused to the wiring which feeds the equipment. It could get so hot that it catches on fire, which might start a fire in the building or vehicle in which the electrical equipment is installed.

Switches:

An electrical switch is any device used to interrupt the flow of electrons in a circuit. Switches are essentially binary devices: they are either completely on ("closed") or completely off ("open"). There are many different types of switches, but the most common type of switches are 1) Toggle switch 2) Push button switch.

Toggle Switch:

Toggle switches are actuated by a lever angled in one of two or more positions. The common light switch used in household wiring is an example of a toggle switch.



Push Button Switch:

Pushbutton switches are two-position devices actuated with a button that is pressed and released. Most pushbutton switches have an internal spring mechanism returning the button to its "out," or "unpressed," position, for momentary operation.



Fan regulators:

Fan regulators have an important place in the electrical switch boards. Fan regulators are very similar to light dimmers. Their function is to regulate/control the speed of the fan and provide a convenient environment for the residents.

The traditional regulators which are bulky use a resistance having taps and connected in series with the fan. When we move the knob different amount of resistance gets inserted in the circuit. Although cheap the biggest problem with such a regulator is that a considerable amount of energy is lost in form of heat through the resistance. When the fan is operating at low speed the power loss is significant.

The technologically superior electronic regulators overcome these problems by using electronic components to control the speed of the fan.

Some of the advantages of electronic fan regulators are:

1. They provide a continuous speed control.
2. Power saving at all the speeds.
3. Smaller size and weight.

The heart of the electronic fan regulator is TRIAC. TRIAC is a semiconductor device belonging to the family of thyristors. When we rotate the knob, the resistance of the circuit changes, which in turn controls the firing angle of the TRIAC.

In simple terms TRIAC is like a semiconductor device having an input to be fed externally. The waveform of voltage is sinusoidal in nature. When the TRIAC is fired at 30 degrees, it allows only the waveform after 30 degree to pass through it in both the positive and negative half cycles. The input to the TRIAC is the angle called the firing angle.

The firing angle can be controlled by means of a variable resistor and/or capacitor to allow only certain portion of the AC cycle to pass through it, thereby reducing the average voltage over the complete cycle. Since the voltage supplied is proportional to the speed and hence the speed of the fan can be increased or decreased.

Short circuit:

A short circuit is an electrical circuit that allows a current to travel along an unintended path, often where essentially no (or a very low) electrical impedance is encountered.

(Or)

An electrical short circuit is a fault that occurs when a low resistance path exists between the hot lead and some grounded points.

When an electrical short circuit occurs, heavy current will flow in the circuit for as long as it takes for the circuit breaker to trip to OFF or for the fuse to blow. Because a properly-working circuit breaker or fuse cuts off the current flow quickly, the circuit wiring will not have time to overheat to the point where fire may occur.

Effects of short circuit:

- A large current through a battery can cause the rapid buildup of heat, potentially resulting in an explosion or the release of hydrogen gas and electrolyte (an acid or a base), which can burn tissue, cause blindness or even death.
- Overloaded wires can also overheat, sometimes causing damage to the wire's insulation, or a fire.
- A short circuit may lead to formation of an Electric arc. Surface erosion is a typical sign of electric arc damage.

Electric Shock – Avoiding electric shocks:

Electric Shock

An electric shock can occur upon contact of a human or animal body with any source of voltage high enough to cause sufficient current flow through the muscles or nerves. The minimum detectable current in humans is thought to be about 1 mA. The current may cause tissue damage or heart fibrillation if it is sufficiently high.

Avoiding electric shocks:

1. Disconnect the circuit, wires or appliance you will work on by switching the appropriate circuit breaker or power disconnection switch to the "Off" position. If you have an older home, your electrical panel may contain fuses that you will need to unscrew from their sockets.
2. Confirm that the power is off using an electrical tester. In most situations, a simple two-prong voltage tester is adequate for testing. This device has two metal leads that you touch to the hot and neutral wires of a circuit or outlet. If voltage is present, a light on the tester will turn on. If the light does not turn on, no voltage is present. Always double check the tester on a circuit that you know is live, such as a normal electrical outlet, to ensure that the tester works properly.
3. Clean up any liquids on the floor or elsewhere in the work area. Liquids can conduct electricity and cause unexpected shocks.
4. Wear insulating gloves and shoes if you need extra protection, or if an appliance near you must remain energized.
5. Work with a partner, especially if you are dealing with dangerously high voltages. If you touch something with your hand and it shocks you, the current may cause your muscles to contract, making it impossible to let go. A partner can save your life by cutting the power, or pushing you away with an insulating rod of some kind.
6. Lock-out and tag-out any electrical equipment that poses a risk to you or someone else. Use the lock to prevent others from activating the equipment, or turning on the breaker switch, before you complete your electrical work. Use the tag to provide your contact information and any warnings about the situation. (Electrical locks and tags are available at most hardware stores.) For standard home repairs, you can usually tape down the breaker switch, or tape over the fuse socket, and post a warning note.

7. Work with one hand in your pocket, when possible, as an additional safety precaution around high voltages. If one hand touches something that shocks you, the current will flow along your arm, down your leg and out your foot. If both hands touch it, the current can flow in one arm and out the other --- right through your heart. Keeping one hand in your pocket could mean the difference between mild injury and sudden death.
8. Check your work. Carefully inspect circuits and connections for loose wires, worn insulation, exposed wire ends that are too close to each other, and signs of overheating (e.g., melting or scorching).
9. Seal up the work area before you reenergize the circuit. In most cases, this requires reinstalling the faceplate of a metal junction box, or attaching the cover of a light switch or outlet.

Electric Bulb

An electric bulb is one of the revolutionary inventions ever made in the history of mankind. The working of an electric bulb is quite simple. When electric current flows through the filament made up of tungsten, it heats up emitting visible light. There are two types of electric bulbs : 1) Incandescent Bulbs and 2) Fluorescent Bulbs

Incandescent bulbs:

Incandescent bulbs work by sending electric current through a resistive material. Typically materials will glow before reaching a melting point. Most materials will glow a dull red color when they reach around 525 Celsius. Most materials will catch fire or melt and can not make a good filament.

Filaments are made from materials that have a high melting point. Tungsten can reach up to 3422 C before it melts. This is a higher temperature than any lamp will reach (except the carbon arc lamp which gets to 3500 C). Other materials have made good filaments or parts of filaments including tantalum, molybdenum, and carbon.

When you pass current through a filament material, the resistance creates heat. Atoms in the material absorb energy. Electrons around the atoms are excited and

temporarily reach an orbital which is further from the nucleus. When the electron orbit collapses to a lower orbital it ejects the extra energy in the form of a photon.

Incandescence is thermal radiation. Heat is constantly emitted from objects around us, we just can't see it. When heat gets intense enough it reaches wavelengths that we can see. It starts with red and goes up the spectrum. The wavelength/color of the light is a matter of how much energy is being released and what kind of atom is doing the release. In an incandescent bulb most of the heat energy (90%) is emitted in the infrared spectrum which is just below visible light. This is also what makes the lamp inefficient. We don't use that part of the spectrum for the lamp's purpose, we only need the visible spectrum.

Advantages:

1. Great for small area lighting
2. Good color rendering: CRI of 100 which is the best possible
3. Cheap to produce
4. No quantity of toxic materials to dispose of (like mercury, toxic alloys, or semiconductors)
5. Is easily used in strobe or dimming circuits

Disadvantages:

1. Not energy efficient (90% of energy goes to heat, 10% makes visible light)
2. Traditional incandescent light bulbs are not useful for lighting large areas.

Fluorescent bulbs

A fluorescent lamp consists of a glass tube that is filled with mercury vapor at low pressure. The inside of the tube is coated with a phosphorous substance. Two coiled metal (tungsten) filaments are at each end of the tube. When an electric current flows through the filaments they start to get hot and glow (like a regular light bulb). When we apply a voltage between the two filaments and electrons get sucked from one filament to the other. While zipping through the tube, electrons crash into mercury atoms, which start to glow and send out ultra-violet (UV) light.

UV-light is very, very violet. Actually it is so violet that you can't see it, but you can get a sunburn from it. So on its own UV-light wouldn't make a useful lamp: that's why there is a phosphorous substance in the inside of the glass tube. When UV-light hits the phosphor atoms, they absorb the UV light and send out the white light that illuminates your room. The conversion of light from one type to another is called fluorescence, which gave the fluorescent lamp its name.

Advantages:

1. Fluorescent lighting is 66% cheaper than regular lighting while providing the same brightness.
2. Fluorescent bulbs last longer.
3. The lights do not give off heat, which makes them great for area lightning and for areas where additional heat can cause equipment to malfunction.

Disadvantages:

1. The initial cost of fluorescent lighting can be up to three times higher than other types of bulbs.
2. Some lighting may require professional installation the first time around, as the electrical connections are more complex.
3. Fluorescent lighting is often less attractive.
4. Some fluorescent bulbs can flicker noticeably and produce an uneven light that may bother some users. Once the flicking becomes obvious to the eye, there is no choice but to replace the lamp.

Calculation of Electricity bill (kWh)

Definition: The kilowatt-hour (symbolized kWh) is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour (1 h) of time. The kilowatt hour is most commonly known as a billing unit for energy delivered to consumers by electric utilities.

We can calculate kilowatt-hour from kilowatts and hours. The energy E in kilowatt-hour (kWh) is equal to the power P in kilowatts (kW), times the time period t in hours (hr):

$$E(\text{kWh}) = P(\text{kW}) \times t(\text{hr})$$

So, kilowatt-hour = kilowatt \times hour (or) $\text{kWh} = \text{kW} \times \text{hr}$

Example:

What is the energy consumption in watt-hour when the power consumption is 5 kilowatts for time duration of 3 hours?

$$E = 5\text{kW} \times 3\text{h} = 15 \text{ kWh}$$

Instructions to calculate an electricity bill:

1. Your electric bill shows your electric usage (electric units) during the billing period. It is measured in kilowatt-hours (kWh). This may vary monthly depending upon the usage of weather-dependent appliances like heater (during winter) and air-conditioners (during summer months).
2. Obtain a copy of the rate tariffs for your electric service provider.
3. Most Electric utilities have a **Customer charge or service charge**. This charge is associated with the utility's administrative costs of providing service to the end user. This ranges from anywhere between 20-30 rupees depending on your utility. (We will assume 30 rupees for our calculation).
4. The next is your unit charge (base rates from the utility tariff). Many utilities have a stepped rate. For e.g.

1st 0-50 kWh – Rs.1.45/kWh

next 51-100 kWh – Rs.2.80/kWh

next 101-200 kWh – Rs.3.05/kWh

next 201-300 kWh – Rs.4.75/kWh

next 301-500 kWh – Rs.6.00/kWh

over 500 kWh – Rs.6.25/kWh

So if your usage during the month was 345 kWh then your usage charge would be calculated as:

$$\text{Energy Charges} = 50 * \text{Rs.1.45} + 50 * \text{Rs.2.80} + 100 * \text{Rs.3.05} + 100 * \text{Rs.4.75} + 45 * \text{Rs.6.00} = \text{Rs.1262-50}$$

5. Some utilities also add a tracking factor (or adjustment factor) in addition to the base rates. These factors are actually the utilities' additional costs for increase in their fuel or

environmental costs over their budgeted costs. These tracking factors are also expressed in Rs./kWh. These should be multiplied by the total kWh amount (900 kWh in our example). Lets assume a tracking factor of Rs.0.015/kWh

$$\text{Additional Charges} = 345 \text{ kWh} * \text{Rs.}0.015/\text{kWh} = \text{Rs.} 5.00$$

6. So, the total electricity bill is

$$\begin{aligned} \text{Total bill} &= \text{Energy charges} + \text{customer charges} + \text{additional charges} \\ &= 1262.00 + 30.00 + 5.00 = \text{Rs.}1297.50 \end{aligned}$$

Multimeter and its Use:

A multimeter measures electrical properties such as AC or DC voltage, current, and resistance. Rather than have separate meters, a multimeter combines a voltmeter, an ammeter, and an ohmmeter. Electricians and the general public might use a multimeter on batteries, components, switches, power sources, and motors to diagnose electrical malfunctions and narrow down their cause.

The two main kinds of a multimeter are analog and digital. A digital multimeter has an LCD screen that gives a straight forward decimal read out, while an analog display moves a bar through a scale of numbers and must be interpreted. Any multimeter will work over a specific range for each measurement. Select one that's compatible with what you meter most, from low-voltage power sources to high-voltage car batteries. Multimeters are specified with a sensitivity range, so make sure you get the appropriate one.

As a voltmeter, a multimeter can measure the amount of AC or DC voltage flowing through a circuit. Voltage is a difference in potential energy between the two points. A fan, for example, should be drawing 230 volts (in india) from the plug in your wall, but a computer scanner might only draw 12 volts from a converter. To test these components, choose AC or DC, select an upper limit on the voltage, and plug the device in question right into the multimeter, without breaking the circuit. The readout should tell you whether it is functioning normally, when compared to the data specified in your user's manual.

As an ohmmeter, a multimeter finds the resistance in a circuit, which is given in ohms. You can find the resistance at any point in a circuit by first unplugging the device from a wall outlet or battery source. Then, input an approximate range you expect to contain the number of ohms. The multimeter actually passes a small amount of electricity from its own battery through the circuit to measure resistance by comparing the voltage sent out to what it receives.

When used as an ammeter, the multimeter measures current flowing through a closed circuit by interrupting that circuit. The multimeter can only be connected in series, which means that all the circuit's current will flow through the ammeter's sensors. You still need to select the range in which you expect the current to fall. This feature is used less often than the others, so some multimeters do not measure current at all.

A multimeter can be a hand-held device useful for basic fault finding and field service work or a bench instrument which can measure to a very high degree of accuracy. They can be used to troubleshoot electrical problems in a wide array of industrial and household devices such as electronic equipment, motor controls, domestic appliances, power supplies, and wiring systems.



Electronics in daily life

UNIT – II: Communication Devices

Wired Communication :

Wired communications is a broad term that is used to describe any type of communication process that relies on the direct use of cables and wiring to transmit audio and visual data. A classic example of wired communications is the traditional home telephone that is connected to the local telephone switch via wires that are ran from the home to the switch.

Telephone and its Working :

The telephone was originally invented by Alexander Graham Bell in 1867. The telephone is a telecommunications device which is used to transmit and receive sound (most commonly speech).

The main components of a telephone are

1. Speaker and microphone
2. Duplex coil
3. Hook switch
4. Keypad
5. Ringer

Speaker and microphone

The two most common parts of any telephone are those parts you directly interact with: the speaker and microphone. The microphone converts the sound waves into electrical signals. These electrical signals are transmitted over the wire and reach the speaker. The speaker again converts these electrical signals into sound waves. In modern telephones these two components are contained in the handset. These components are attached by wires to the duplex coil.

Duplex Coil

Because the microphone and speaker are connected to the same circuit, without any additional technology you would hear yourself in the speaker. Because this can be distracting, telephones have a duplex coil to sort out your voice from the other person's voice.

Hook Switch

The hook switch connects and disconnects your telephone to the local telephone network. When you lift the phone off the cradle, the switch connects creating a closed circuit to the telephone network. This is where the phrase "off the hook" comes from. When you put the phone back onto the cradle, it creates an open circuit and disconnects the phone from the network.

Keypad

Before keypads were included on telephones, you would have to call the operator to connect you to another person. The keypad allows you to pass sound frequencies through the telephone network to connect you to other people. The keypad can also be used to interact with automated telephone systems.

Ringer

Between the wall jack and the other components of the phone is a ringer that signals when a phone call is incoming. The ringer has to be placed before the hook switch so that it can ring without your phone being actively connected to the phone network.

Wireless communication :

Wireless communication is transferring information through a distance without the use of wires or electrical conductors. The term wire-less says it all. The transfer of information might be of a short distance like the usage of a TV remote or a long distance like the use of radio communication to transfer information.

There are so many examples for wireless devices. Some of them are. mobile phones, two way radios, personal digital assistance (also known as a PDA), wireless networks, the GPS unit in cars, computer keyboards, satellite television and so many other electrical equipment that work without the two sources connected by electrical cord.

Mobile or cell phone :

A mobile phone (also known as a cellular phone, cell phone and a hand phone) is a device that can make and receive telephone calls over a radio link while moving around a wide geographic area.

Advantages of cell phones :

1. **Stay connected anytime and anywhere:** The most basic benefit of a cell phone for which most of us use it is that we can stay connected with our loved ones in any

part of the world and anytime. Gone are the days when we used to stand in queues to make an STD or ISD calls. You can talk to your loved ones staying even seven seas far with cell phones.

2. **SMS:** When initially SMS was invented, the makers were not actually sure whether it will work. I mean when people can straightaway make a call and talk, then why would anybody like to take the pain of typing a message! But to their surprise SMSs are today the most widely used service across the world. There are many situations in which a person can't attend a call, so all you have to do is simply send an SMS and without talking your message is delivered.
3. **Your way out in emergencies:** Imagine you are stuck in a traffic jam, getting late for a meeting or your car has broken down in middle of nowhere. Cell phones are of great use in time of such emergencies. You can contact help with the use of cell phone easily.
4. **Navigation in your hand:** cell phones are constantly being upgraded with new technology and the recent phones are equipped with navigation and GPRS systems. You can never get lost if you have a cell phone with navigation system. Imagine, it gives you the details of every nook and corner of your destination.
5. **Mini PC:** cell phones are nowadays almost equivalent to mini computers. The latest ones are equipped with windows and internet facilities. So you don't need to wait for the newspaper! You can simply access the internet on your cell phone and get to know about the latest news, your e-mails, movie shows and a lot more!
6. **Enhance your business:** cell phones are a great help even at your business. With cell phones, you can constantly stay in touch with your employees and get to know about crucial information of your business.
7. **Help in legal matters:** a lot of criminals are these days being held because of their cell phones! The police can track a criminal via tracking the place where his mobile phone is using GPS. Also checking a cell phone's call records give vital information to the defense forces about the criminals.
8. **Wholesome entertainment:** with a cell phone in your hand, you don't need a TV or PC to get entertained. It is all in your cell phone. You can play games, listen to music, and click pictures and even record videos in your cell phone.

9. **Transfer of data:** these days cell phones are equipped with infrared and bluetooth technologies which allow you to transfer data like mails, pictures, music and even videos just in span of seconds.
10. **Prestige and fashion statement:** cell phones have become a matter of prestige and fashion statement, especially among the youth. If you have a latest handset then you can definitely impress others!

Disadvantages of cell phones (Health hazards) :

Though there is no evidence of cell phones causing cancer or any such illness, but the suspicion, or fear of the same is not baseless either. The electromagnetic radiation from cell phones does have a potential link to cancer. The fact that this radiation is invisible, intangible, and enters and leaves our bodies without our knowledge makes it even more intimidating.

Cancer / Tumors

Studies have been conducted suggesting that rats that have been exposed to microwaves similar to the sort generated by mobile phones but more powerful, showed breaks in their DNA which could indicate an adverse effect. Also, mice exposed to radiation for 18 months developed brain tumors. Though of course, these studies are not concrete proof.

Blood Pressure

It was observed that people using cell phones were prone to high blood pressure. Again, there isn't any concrete evidence of the same.

Pregnancy

A study at the University of Montpellier in France was carried out on 6000 chick embryos and suggested that the heavily exposed chick eggs were five times less likely to survive than the control group.

This study raised questions about possible effects on pregnant women but it has not yet appeared in peer-reviewed scientific literature or been reproduced, so its findings are difficult to assess.

Headaches, Heating Effects, Fatigue

A study brought out that longer the people used mobile phones, the more likely they were to report symptoms such as hot ears, burning skin, headaches and fatigue.

The study did not include a control group (that is people who do not use mobile phones, to make a comparison); therefore the symptoms reported could have been caused by any number of other factors in the mobile phones users' environment, such as working with computers, stress, driving or reading.

Memory

There have been various studies into the connection between mobile phones and memory loss. A study looked into the effect of radiofrequency (RF) on the section of rats' brains that is linked with the memory. The results showed that RF could modify signals in the cells in a part of the brain that is responsible for learning and short term memory.

Posture (holding phone between raised shoulder and ear)

Some researchers claim that holding a mobile phone between the raised shoulder and the ear could have a damaging effect on muscles, bones, tendons and discs. These problems would apply equally to a cordless phone or a landline phone as to a mobile phone and are the effect of bad posture.

Mobile Phones and Children

Because of their smaller heads, thinner skulls and higher tissue conductivity, children may absorb more energy from a given phone than adults.

Cell tower and its radiation effects :

The popularity of cell phones and wireless communication devices has resulted in a proliferation of cell towers across the city. While all of us have had our share of fun with mobile technology, it is now time to introspect and study the problems that one could face because of cell phone towers being installed in residential areas.

Health Hazard from Cell Phone Towers

The mobile phone towers crowding the city's skyline are making the air toxic for you. There are indicative studies to prove that these radiations are harmful for people living in a 300 meter radius of the towers. Pregnant women and children are in greater danger

from cell phone towers than the normal population. It is very unfortunate to see huge cell towers thronging the rooftops in and around the residential apartments, Hospitals, schools and educational institutions and this has become more or less a common sight in cities across India and elsewhere.

- The younger the child, the deeper is the penetration of electromagnetic radiation as children's skulls are thinner.
- Children, adolescents and pregnant women could be at the maximum risk
- Radiation from mobile towers poses grave health risks including memory loss, lack of concentration and digestive disturbances.
- The radiation effects to the disappearance of butterflies, bees, insects and sparrows.
- According to established norms, the radiation level of 600 milli watts per meter square (mw/msq) is considered safe. But Mobile phone towers emit electro magnetic rays above safe limit.
- Being exposed to the thermal effect could cause fatigue, cataracts and reduced mental concentration.
- There is non-thermal effect, which affects people who are at a distance from the tower. The ill-effects of a non-thermal effect are cell membrane permeability.
- The number of people having health problems is more in the areas where radiation levels are high. These Towers are like deadly weapons for all living beings.

FM Radio and its working :

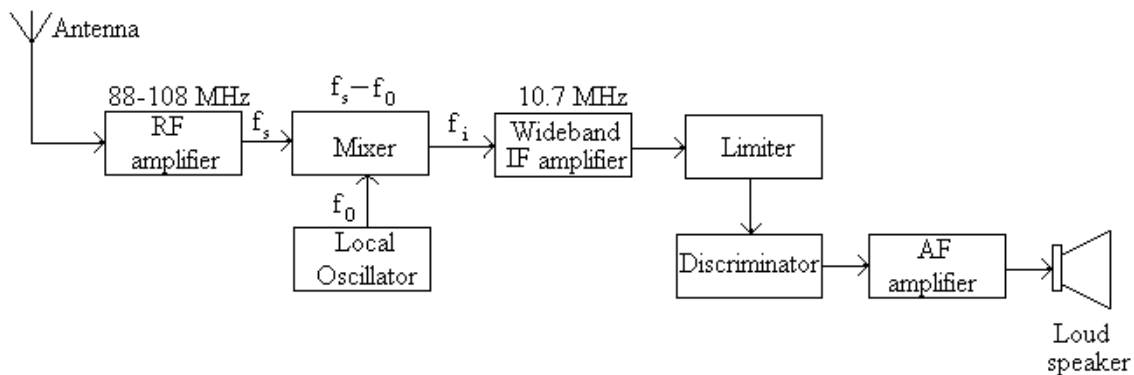


Fig: Block diagram of FM radio receiver

(i) Antenna or Aerial :

The receiver antenna intercepts the electromagnetic waves, converts them into RF voltage and delivers into the receiver input by means of feeder wire, where a parallel tuned circuit responds only to voltages at the desired carrier frequency. The voltage so picked is fed to the input of RF amplifier stage.

(ii) RF amplifier stage :

The voltage developed across the capacitor of the input tuned circuit should be amplified to detect weak signals. It is done by using a RF voltage amplifier. It raises the level of signal voltage before it is fed to the mixer. It also improves the signal to noise ratio.

(iii) Mixer or Frequency converter stage:

The frequency changing section of the receiver is required to convert the frequency of all incoming carriers to the intermediate frequency (IF) value which in most common cases is 455kHz. To obtain it, the radio frequency signal voltage of frequency f_s and a local oscillator voltage f_o are heterodyne or mixed in the mixer stage. The output of the mixer has the frequency component $f_s - f_o = f_i$.

(iv) Wideband IF amplifier :

IF signals produced by mixer stage are amplified by IF amplifier which have one or more stages of amplification and designed to amplify a wideband of frequencies around a central frequency.

(v) Limiter :

Limiter is a sort of clipping circuit. Its function is to remove amplitude variations (caused by noise) from IF signal. This removal of amplitude variations is necessary for distortion less demodulation.

(vi) Discriminator:

The discriminator maintains the amplitude of the carrier constant and transforms the frequency variations of the FM signal into equivalent amplitude variations.

(vii) Audio frequency amplifier :

The audio frequency signal obtained at the output of detector is of insufficient amplitude. It is, therefore, fed to AF amplifier to provide additional amplification. Usually

one stage of audio voltage amplifier is used which is followed by one or more stages of audio power amplifier.

(viii) Loud speaker :

Through an impedance matching transformer, the amplified audio output voltage of audio power amplifier is fed to the loudspeaker. It is an electromechanical device that is used to convert the audio currents into sound waves. Thus the original program is reproduced.

Use of satellites in Communication :

In 1962, the American telecommunications giant AT&T launched the world's first true communications satellite, called Telstar. Since then, countless communications satellites have been placed into earth orbit, and the technology being applied to them is forever growing in sophistication.

i) Traditional Telecommunications

Since the beginnings of the long distance telephone network, there has been a need to connect the telecommunications networks of one country to another. This has been accomplished in several ways. Submarine cables have been used most frequently. However, there are many occasions where a large long distance carrier will choose to establish a satellite based link to connect to transoceanic points, geographically remote areas or poor countries that have little communications infrastructure. Groups like the international satellite consortium Intelsat have fulfilled much of the world's need for this type of service.

ii) Cellular

Various schemes have been devised to allow satellites to increase the bandwidth available to ground based cellular networks. Every cell in a cellular network divides up a fixed range of channels which consist of either frequencies, as in the case of FDMA systems, or time slots, as in the case of TDMA. Since a particular cell can only operate within those channels allocated to it, overloading can occur. By using satellites which operate at a frequency outside those of the cell, we can provide extra satellite channels on demand to an overloaded cell. These extra channels can just as easily be, once free, used by any other

overloaded cell in the network, and are not bound by bandwidth restrictions like those used by the cell. In other words, a satellite that provides service for a network of cells can allow its own bandwidth to be used by any cell that needs it without being bound by terrestrial bandwidth and location restrictions.

iii) Television Signals

Satellites have been used for since the 1960's to transmit broadcast television signals between the network hubs of television companies and their network affiliates. In some cases, an entire series of programming is transmitted at once and recorded at the affiliate, with each segment then being broadcast at appropriate times to the local viewing populace. In the 1970's, it became possible for private individuals to download the same signal that the networks and cable companies were transmitting, using c-band reception dishes. This free viewing of corporate content by individuals led to scrambling and subsequent resale of the descrambling codes to individual customers, which started the direct-to-home industry. The direct-to-home industry has gathered even greater momentum since the introduction of digital direct broadcast service.

iv) Marine Communications

In the maritime community, satellite communication systems such as Inmarsat provide good communication links to ships at sea. These links use a VSAT type device to connect to geosynchronous satellites, which in turn link the ship to a land based point of presence to the respective nations telecommunications system.

v) Spaceborne Land Mobile

Along the same lines as the marine based service, there are VSAT (very small-aperture terminal) devices which can be used to establish communication links even from the world's most remote regions. These devices can be hand-held, or fit into a briefcase. Digital data at 64K ISDN is available with some (Inmarsat).

vi) Satellite Messaging for Commercial Jets

Another service provided by geosynchronous satellites are the ability for a passenger on an airbourne aircraft to connect directly to a landbased telecom network.

vii) Global Positioning Services

Another VSAT oriented service, in which a small apparatus containing the ability to determine navigational coordinates by calculating a triangulating of the signals from multiple geosynchronous.

Remote sensing :

Remote sensing is the science of obtaining information about objects or areas from a distance, typically from aircraft or satellites. For example, a detailed picture of a coastal community taken by a remote sensing device can be used to prepare for hazardous events such as hurricanes or floods.

Remote sensors collect data by detecting the energy that is reflected from Earth. These sensors can be on satellites or mounted on aircraft.

Remote sensors can be either passive or active. Passive sensors respond to external stimuli. They record radiation that is reflected from Earth's surface, usually from the sun. Because of this, passive sensors can only be used to collect data during daylight hours.

In contrast, active sensors use internal stimuli to collect data about Earth. For example, a laser-beam remote sensing system projects a laser onto the surface of Earth and measures the time that it takes for the laser to reflect back to its sensor.

Remote sensing has a wide range of applications in many different fields:

Coastal applications: Monitor shoreline changes, track sediment transport, and map coastal features. Data can be used for coastal mapping and erosion prevention.

Ocean applications: Monitor ocean circulation and current systems, measure ocean temperature and wave heights, and track sea ice. Data can be used to better understand the oceans and how to best manage ocean resources.

Hazard assessment: Track hurricanes, earthquakes, erosion, and flooding. Data can be used to assess the impacts of a natural disaster and create preparedness strategies to be used before and after a hazardous event.

Natural resource management: Monitor land use, map wetlands, and chart wildlife habitats. Data can be used to minimize the damage that urban growth has on the environment and help decide how to best protect natural resources.

Weather forecasting :

- Weather forecasting is the application of science and technology to predict the state of the atmosphere for a future time and a given location.
- Weather forecasts are made by collecting quantitative data about the current state of the atmosphere and using scientific understanding of atmospheric processes to project how the atmosphere will evolve.

TYPES OF WEATHER FORECASTING

Short range forecast	up to	48 hr
Extended forecast	up to	5 days
Long range forecast	up to	30 days

Techniques

- Persistence
- Use of a barometer
- Looking at the sky
- Now casting
- Use of forecast models
- Analog techniques

Weather satellites

- On each satellite there two types of sensors
- One is a visible light sensor called imager, which works like a camera in space and helps to gather information on cloud movements and patterns
- The second sensor is called the sounder. It's an infrared sensor that reads temperatures. The higher the temperature of the object, the more energy it emits.

Doppler RADAR

- Doppler radar is another essential meteorological tool. Radar measures reflected sound waves.
- When sound waves are broadcast from a radar antennae, they may come into contact with objects in their path
- Using Doppler radar, meteorologists can get a picture of precipitation that allows them to track a storm's progress over time.

Features

- Air traffic
- Marine
- Agriculture
- Private sector
- Military applications

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Electronics in daily life

UNIT – III: PC Hardware

Parts of a computer

A computer is really a system of many parts working together. The physical parts, which you can see and touch, are collectively called hardware. (Software, on the other hand, refers to the instructions, or programs, that tell the hardware what to do.)

i) System unit :

The system unit is the core of a computer system. Usually it's a rectangular box placed on or underneath your desk. Inside this box are many electronic components that process information. The most important of these components is the central processing unit (CPU), or microprocessor, which acts as the "brain" of your computer. Another component is random access memory (RAM), which temporarily stores information that the CPU uses

while the computer is on. The information stored in RAM is erased when the computer is turned off.

ii) CD and DVD drives :

Nearly all computers today come equipped with a CD or DVD drive, usually located on the front of the system unit. CD drives use lasers to read (retrieve) data from a CD, and many CD drives can also write (record) data onto CDs. If you have a recordable disk drive, you can store copies of your files on blank CDs. You can also use a CD drive to play music CDs on your computer.

DVD drives can do everything that CD drives can, plus read DVDs. If you have a DVD drive, you can watch movies on your computer. Many DVD drives can record data onto blank DVDs.

iii) Mouse :

A mouse is a small device used to point to and select items on your computer screen. Although mice come in many shapes, the typical mouse does look a bit like an actual mouse. It's small, oblong, and connected to the system unit by a long wire that resembles a tail. Some newer mice are wireless.

iv) Keyboard :

A keyboard is used mainly for typing text into your computer. Like the keyboard on a typewriter, it has keys for letters and numbers, but it also has special keys:

- The function keys, found on the top row, perform different functions depending on where they are used.
- The numeric keypad, located on the right side of most keyboards, allows you to enter numbers quickly.
- The navigation keys, such as the arrow keys, allow you to move your position within a document or webpage.

v) Monitor :

A monitor displays information in visual form, using text and graphics. The portion of the monitor that displays the information is called the screen. Like a television screen, a computer screen can show still or moving pictures.

There are two basic types of monitors: CRT (cathode ray tube) monitors and LCD (liquid crystal display) monitors. Both types produce sharp images, but LCD monitors have the advantage of being much thinner and lighter. CRT monitors, however, are generally more affordable.

vi) Printer :

A printer transfers data from a computer onto paper. You don't need a printer to use your computer, but having one allows you to print email, cards, invitations, announcements, and other materials. Many people also like being able to print their own photos at home.

The two main types of printers are inkjet printers and laser printers. Inkjet printers are the most popular printers for the home. They can print in black and white or in full color and can produce high-quality photographs when used with special paper. Laser printers are faster and generally better able to handle heavy use.

vii) Speakers :

Speakers are used to play sound. They may be built into the system unit or connected with cables. Speakers allow you to listen to music and hear sound effects from your computer.

Viii) Modem :

To connect your computer to the Internet, you need a modem. A modem is a device that sends and receives computer information over a telephone line or high-speed cable. Modems are sometimes built into the system unit, but higher-speed modems are usually separate components.

LCD Displays :

An LCD (Liquid Crystal Display) is a thin, electronic image-projecting screen using liquid crystals. An LCD screen uses a series of six complex layers to twist and process liquid crystals to produce an image. According to Advanced Technology for Humanity (IEEE), LCD screens are more compact, lightweight and portable than other display screens. In addition, LCD screens require a low amount of energy and have a very long lifespan, making them more cost effective for many technologies. LCD screens are used in a wide range of products.

Clocks :

Alarm clocks and wall clocks commonly use LCDs to create simplistic, easy-to-read screens. Modern LCD clocks use the liquid crystal display to create decorative colors and images behind the date and time. While the numbers are typically simplistic, LCD alarm clocks often offer customization options for a stylized display.

Calculators :

Calculators use LCDs because of its light and compact design. This allows the screen to be as large as practical while requiring little casing space and keeping the weight to a minimum. According to IEEE, LCD is the most common form of display in modern hand-held calculator devices.

Television :

LCD technology is common in television screens for its light-weight design and cost effectiveness. According to MSNBC, since 2007, LCD sales have surpassed that of the traditional vacuum tube televisions and offer competition to plasma television sales as well. In addition, Flat Panel TV.org states that an LCD TVs screen lifespan is upward of 60,000 hours, making it more cost effective than other TV screens. LCD televisions are available in all sizes ranging from a 4-inch pocket-sized TV to stadium displays of more than 150 inches.

Cameras :

Camera display screens often use LCD technology to save space and reduce weight. An LCD camera screen displays the digital image from the lens and allows the user to review photos stored in the camera's memory. According to IEEE, LCD is the favored technology for digital camera screen production.

Computers :

Desktop and laptop computer screens use LCD technology because of the compact design and energy efficiency. Laptop screens favor LCD technology because it requires little energy to power, extending battery life. In addition, LCD technology is light weight, supporting the portability of the laptop unit.

Watches :

Watch display screens use LCD technology to create a modern watch screen. LCD watches typically have options for customization including larger numbers and personalized backgrounds. An LCD screen also uses a low amount of energy, allowing for maximum watch battery life.

Motherboard :

The main printed circuit board in a computer is known as the Motherboard. It is also known as System Board, Main Board or Printed Wired Board (PWB).

Important components of a motherboard :

1. Mouse & keyboard:

Keyboard Connectors are two types basically. All PCs have a Key board port connected directly to the motherboard. The oldest, but still quite common type, is a special DIN, and most PCs until recently retained this style connector. The AT-style keyboard connector is quickly disappearing, being replaced by the smaller mini DIN PS/2-style keyboard connector.

You can use an AT-style keyboard with a PS/2-style socket (or the other way around) by using a converter. Although the AT connector is unique in PCs, the PS/2-style

mini-DIN is also used in more modern PCs for the mouse. Fortunately, most PCs that use the mini-DIN for both the keyboard and mouse clearly mark each mini-DIN socket as to its correct use. Some keyboards have a USB connection, but these are fairly rare compared to the PS/2 connection keyboards.

2. USB (Universal serial bus):

USB is the General-purpose connection for PC. You can find USB versions of many different devices, such as mice, keyboards, scanners, cameras, and even printers. A USB connector's distinctive rectangular shape makes it easily recognizable.

USB has a number of features that makes it particularly popular on PCs. First, USB devices are hot swappable. You can insert or remove them without restarting your system.

3. Parallel port:

Most printers use a special connector called a parallel port. Parallel port carry data on more than one wire, as opposed to the serial port, which uses only one wire. Parallel ports use a 25-pin female DB connector. Parallel ports are directly supported by the motherboard through a direct connection or through a dangle.

4. CPU Chip :

The central processing unit, also called the microprocessor performs all the calculations that take place inside a pc. CPUs come in Variety of shapes and sizes.

Modern CPUs generate a lot of heat and thus require a cooling fan or heat sink. The cooling device (such as a cooling fan) is removable, although some CPU manufactures sell the CPU with a fan permanently attached.

5. RAM slots:

Random-Access Memory (RAM) stores programs and data currently being used by the CPU. RAM is measured in units called bytes. RAM has been packaged in many different ways. The most current package is called a 168-pin DIMM (Dual Inline Memory module).

6. Floppy controller:

The floppy drive connects to the computer via a 34-pin ribbon cable, which in turn connects to the motherboard. A floppy controller is one that is used to control the floppy drive.

7. IDE controller:

Industry standards define two common types of hard drives: EIDE and SCSI. Majority of the PCs use EIDE drives. SCSI drives show up in high end PCs such as network servers or graphical workstations. The EIDE drive connects to the hard drive via a 2-inch-wide, 40-pin ribbon cable, which in turn connects to the motherboard. IDE controller is responsible for controlling the hard drive.

8. PCI slot:

Intel introduced the Peripheral component interconnect bus protocol. The PCI bus is used to connect I/O devices (such as NIC or RAID controllers) to the main logic of the computer. PCI bus has replaced the ISA bus.

9. ISA slot: (Industry Standard Architecture)

It is the standard architecture of the Expansion bus. Motherboard may contain some slots to connect ISA compatible cards.

10. CMOS Battery:

To provide CMOS with the power when the computer is turned off all motherboards comes with a battery. These batteries mount on the motherboard in one of three ways: the obsolete external battery, the most common onboard battery, and built-in battery.

11. AGP slot:

If you have a modern motherboard, you will almost certainly notice a single connector that looks like a PCI slot, but is slightly shorter and usually brown. You also

probably have a video card inserted into this slot. This is an Advanced Graphics Port (AGP) slot.

12. CPU slot:

To install the CPU, just slide it straight down into the slot. Special notches in the slot make it impossible to install them incorrectly. So remember if it does not go easily, it is probably not correct. Be sure to plug in the CPU fan's power.

13. Chipset :

A chipset is a number of integrated circuits built onto the board to provide specific functions e.g. one part of the chipset may be an onboard component such as a modem or sound chip. Other parts may be used to control the CPU functions.

14. BIOS (Basic Input Output System) Chip

The BIOS holds the most important data for your machine, if configured incorrectly it could cause your computer not to boot correctly or not at all. The BIOS also informs the PC what the motherboard supports in terms of CPU etc.

15. Power supply plug in:

The Power supply, as its name implies, provides the necessary electrical power to make the pc operate. the power supply takes standard 110-V AC power and converts into +/-12-Volt, +/-5-Volt, and 3.3-Volt DC power.

The power supply connector has 20-pins, and the connector can go in only one direction.

Power Supply Unit (PSU):

A power supply is a hardware component that supplies power to an electrical device. It receives power from an electrical outlet and converts the current from AC (alternating current) to DC (direct current), which is what the computer requires.

Need of RPS (Regulated Power Supply)

Regulated DC power supplies provide accurate DC voltage, which are derived from AC mains. These DC supplies are cheaper in nature than the DC sources from battery. Such supplies provide constant voltage irrespective of load variations for which they are designed. DC power supplies are used extensively in various electronics laboratories, industries and communication departments to feed DC voltage to the electronic modules, R and D sections, institutions and colleges to impart practical training etc.

Different types of power supplies :

Two major types of power supplies are distinguished: regulated power supplies and unregulated power supplies. Regulated power supplies are further divided into linearly regulated power supplies and switch mode power supplies.

Unregulated power supply

An AC powered unregulated power supply usually uses a transformer to convert the voltage from the wall outlet (mains) to a different (nowadays usually lower voltage). If it is used to produce DC, a rectifier is used to convert alternating voltage to a pulsating direct voltage, followed by a filter, comprising one or more capacitors, resistors, and sometimes inductors, to filter out (smooth) most of the pulsation. A small remaining unwanted alternating voltage component at mains or twice mains power frequency (depending upon whether half- or full-wave rectification is used)—ripple—is unavoidably superimposed on the direct output voltage.

For purposes such as charging batteries the ripple is not a problem, and the simplest unregulated mains-powered DC power supply circuit consists of a transformer driving a single diode in series with a resistor.

Linear regulated power supply

The voltage produced by an unregulated power supply will vary depending on the load and on variations in the AC supply voltage. For critical electronics applications a linear regulator may be used to set the voltage to a precise value, stabilized against fluctuations in input voltage and load. The regulator also greatly reduces the ripple and

noise in the output direct current. Linear regulators often provide current limiting, protecting the power supply and attached circuit from overcurrent.

Adjustable linear power supplies are common laboratory and service shop test equipment, allowing the output voltage to be adjusted over a range. For example, a bench power supply used by circuit designers may be adjustable up to 30 volts and up to 5 amperes output. Some can be driven by an external signal, for example, for applications requiring a pulsed output.

Switched-mode power supply

In a switched-mode power supply (SMPS), the AC mains input is directly rectified and then filtered to obtain a DC voltage. The resulting DC voltage is then switched on and off at a high frequency by electronic switching circuitry, thus producing an AC current that will pass through a high-frequency transformer or inductor. Switching occurs at a very high frequency (typically 10 kHz — 1 MHz), thereby enabling the use of transformers and filter capacitors that are much smaller, lighter, and less expensive than those found in linear power supplies operating at mains frequency. After the inductor or transformer secondary, the high frequency AC is rectified and filtered to produce the DC output voltage. If the SMPS uses an adequately insulated high-frequency transformer, the output will be electrically isolated from the mains; this feature is often essential for safety.

SMPS (Switched Mode Power Supply) :

A switched-mode power supply (switching-mode power supply, SMPS, or switcher) is an electronic power supply that incorporates a switching regulator to convert electrical power efficiently.

Switched-mode power supplies have applications in various areas. A switched-mode supply is chosen for an application when its weight, efficiency, size, or wide input range tolerance make it preferable to linear power supplies.

Advantages of SMPS:

- High efficiency
- Small size

- Light weight
- Easy to regulate
- Wide input voltage range
- Provides over voltage protection
- Isolation from main supply
- Generation of low and medium voltage supplies are easy

Disadvantages :

- Complex circuitry
- Expensive

Applications :

- Personal computers
- Battery chargers
- Central power distribution
- Vehicles
- Consumer electronics
- Space station
- LED light bulb
- Video projectors
- Measuring instruments

UPS (Uninterruptible Power Supply) :

An uninterruptible power supply, is an electrical apparatus that provides emergency power to a load when the input power source, typically mains power, fails.

Small UPS systems provide power for a few minutes; enough to power down the computer in an orderly manner, while larger systems have enough battery for several hours. In mission critical datacenters, UPS systems are used for just a few minutes until electrical generators take over.

Traditionally, a UPS is used primarily for computers, but there are other instances where you might use a UPS.

Computers

Like I said earlier, a very common place to find a UPS is with a computer. It protects the data on the computer from being lost if the power goes out. If you have a UPS with voltage regulation (power cleaning), it also ensures that the computer has a consistent voltage supplied to it – extending the life of the computer.

Plasma and LCD Televisions

The new Plasma and LCD televisions are sensitive to the voltage supplied to them. A UPS with voltage regulation is recommended to protect the sensitive electronics from variations in the voltage supplied to them. They are susceptible to burnouts (when the voltage drops suddenly) and a UPS can protect them from it.

Fish Aquarium Pump

Now, this might be the weirdest thing on the list, but hear me out. On most aquarium pumps, if the power goes out, they are not able to filter the water until some water is poured into them. If you fail to notice that the pump is not circulating the water for a few hours, you can expect your fish tank to be green and dirty. Having a UPS connected to the fish aquarium pump can save you from the task of cleaning the tank.

Alarm Clocks or anything with Battery Backup

You probably have an alarm clock at home that has battery backup. Now, I applaud this as a great idea, though there is one problem: every time the power has gone out for me, the 9V battery in the alarm clock has been dead. No matter how many times I change the battery, the result is always the same. So, I have plugged in a UPS to my alarm clock – the power can be off for days and I still know the right time.

Cordless Phones

Many people today have cordless phones in their home. The biggest problem with them though is that when the power goes off, they just don't work. They need power to the base to operate. Having the base plugged into the UPS gives you enough time to call if there is an emergency, or order a pizza.





Government Degree College, Mahabubabad

ESTD : 1984

Affiliated to Kakatiya University

Accredited by NAAC & ISO 9001:2015 Certified

(Mahabubabad, Mahabubabad (Dist.), Telangana-506101).



Objectives of the Certificate Course.

The following are the objectives of Certificate Course

1. To enable students, learn correct pronunciation, spelling, meaning and usage of English Vocabularies.
2. To make students frame correct sentences with known vocabularies based on daily routines.
3. To give English language skill practice to students to enhance their English proficiency.
4. To expose students to native speakers' spoken language to enable students to recognize native speakers' accent and language usage.
5. To simulate real life situations in the classroom to practice real English dialogues and speeches to gain English language fluency.
6. To give both silent and loud reading practice to students, to enhance their comprehension and English sound recognition skills.
7. To help students overcome their fear and to speak in English in front of their peers and teachers thus, build their self-confidence through various classroom activities and outdoor activities.
8. To help students to become autonomous and self-directed English language learners.
9. To produce entrepreneurs among students by making them English language trainers and take communicative English to schools and colleges around.

Govt. Degree College, Mahabubabad is geographically situated in Mahabubabad District, and it is the agricultural hub. Needless to say, that the students at Govt. Degree College, Mahabubabad,

hail from these villages. These students are typically from rural backgrounds. When it comes to education, students from rural areas face a number of challenges. Especially, at the tertiary level of education, English is identified as posing a great challenge to the rural Indian learners. It is against this background that the relevance and urgency of this best practice could be understood in its depth as majority of the students enrolled at Govt. Degree College, Mahabubabad have done their schooling in Telugu medium, that too in government run schools, their exposure to English is to a very minimum standard.

Facts

1. Majority of the students enrolled at Govt. Degree College, Mahabubabad have done their schooling in Telugu medium that too in government run schools and their exposure to English is to a minimum.
2. Though English is a language, it is taught as a subject, i.e., the objective is to acquire knowledge and to merely pass the examinations.
3. As parents themselves are not exposed to English, the family situation does not help in acquiring English language at home.
4. Acquiring English language as a skill needs continuous language practice, which in the present context of education is not provided.
5. These students do have the basic potential for English language, which calls for appropriate ways of making students acquire English.
6. As almost all tertiary level studies are done through English medium of studies, it is necessary to enhance English language proficiency of the student's right at the start of the studies, which will help them to pursue their main subjects of specialization.
7. An enhanced English language increases the self-confidence of the rural Indian learners. An increased self-confidence in students is a sure way to success.
8. A good proficiency in English language could ensure a successful career in the present context of globalization.

All the above-mentioned reasons made the management of Govt. Degree College, Mahabubabad, to implement **Communication Skills in English** as a certificate course for all students enrolled in the institute.

Strategies:

The following strategies are carried out to implement the program:

1. ***Streaming***: Many studies have shown that homogeneous group of students create a more conducive atmosphere for learning. Hence, the first-year students at the tertiary level studies are streamed into three homogeneous groups of students.
2. ***Gender-wise Streaming***: Most of the students enrolled in the college are from rural backgrounds and are not from co-educational schools. Hence, most of the students especially, the girls are tongue-tied in front of the boys. A mixed-gender atmosphere increases the anxiety level, which makes language learning difficult. As language learning involves risk taking, the presence of the opposite gender increases the anxiety level.
3. ***Intensive Language Training***: Any course that meets more than the conventional one period a day can be labelled intensive. It is a well-established fact that a prolonged exposure to a language increases the speed of acquiring that language (The way we have learnt our mother tongue is an example.). Hence, two continuous hours of communicative classes are considered opportune.
4. ***Accommodating Departmental Programmes***: Each department organizes a variety of programmes like remedial classes, association activities, special classes, CQC activities, etc. In order to enable the students to participate in the above-mentioned departmental programmes, Communicative English Programme is organized on alternative days. Besides, all of these programmes are in English. Hence, the language exposure continues unhindered.
5. ***Basic Language Skills are taught in Isolation***: The basic language skills of Listening, Speaking, Reading, and Writing (LSRW) are taught in isolation, emphasizing each skill at a time, though an integrated skill acquisition takes place automatically.
6. ***More Emphasis on Listening and Reading Skills***: In the general English classes, more emphasis is given to Speaking and Writing skills. Hence, in the Communicative English Programme, more emphasis is given to Listening and Reading skills. Outdoor activities are organized and ICT equipments are used easily during the communicative English classes to enhance Listening and Reading skills.
7. ***Language Assessment by a Team***: Language assessment of learners are always done by a team of trainers. Language assessment tends to be more subjective. To make it more

objective, a team of trainers assess the learners. Even for streaming the learners, placement tests in LSRW are conducted to assess the entry-level proficiency of learners and are evaluated by a team of trainers.

Continuous Assessment Tests:

No term-end examination is conducted for Communicative Skills in English. A series of formative tests are conducted at regular intervals to assess the progress made by the learners. The tests' scores are used to make a final evaluation of a learner.

Evidence of Success

A scientific analysis was carried out to evaluate the effectiveness of Communicative Skills in English as one of the best practices of Govt. Degree College, Mahabubabad. This study was extended to the final year undergraduate students who have successfully completed two years of vigorous training with regard to the programme on Communicative Skills in English

After the Completion of the Course, it is observed that:

- Majority (65.4%) of the respondents stated that they were able to improve their English vocabulary.
- Majority (65.4%) of the respondents have developed their skills in narration.
- More than half (56.8%) of the respondents have developed their extempore skills
- Majority (63.7%) of the respondents have improved on their reading comprehensions through the programme "Communicative English".
- More than half (56.6%) of the respondents have improved their skills with regard to comprehending an audio and video presentations in English.
- More than half (58.9%) of the respondents have stated that the programme on „Communicative English“ was effective to their overall development in their proficiency of the language.

GOVERNMENT DEGREE COLLEGE MAHABUBABAD
(Accredited By NAAC with 'B' Grade)

A CERTIFICATE COURSE ON
BASIC COMMUNICATION SKILLS IN ENGLISH

Organization: The Course organized by the Department of English of this College and This course has conducted for 43 students and the course has commenced on 25th March 2019 and closed on 14th April, 2019 with a duration of 31 days. and lasted for 55 days.

Course Content:

Section - A

NECESSARY SKILLS FOR SELECTION

1. Communication Skills
 - a. Use of Modals
 - b. Use of Auxiliary Verbs
 - c. Vocabulary
2. Application Grammar
 - a. Some common Situations in Daily Life
 - b. Application questions and answers in day to day situations
 - c. Application of Passive forms in day to day situations
 - d. Comparisons in daily use
 - e. Reporting others' voices

Section - B

ON JOB SKILLS

3. Writing Skills
 - a. Basic Structure of sentences in English

- b. maintaining Coherence in composition
- c. Introduction, Development of thought and Conclusion
- d. How to prepare a report in English

4. Soft Skills

- a. Developing an impressive personality
- b. Working in Teams
- c. Leading a Team
- d. Managing Conflicts

5. Making Your Presentation effective

- a. Positive presentation of self (without overtones)
- b. Use of effective expressions

Expected Out Comes: After completion of the course, the students will be able to:

- Enhance communication skills
- Face interviews with confidence
- Compete for national level jobs
- Get jobs in corporate sector
- Write proper reports
- Acquire leadership skills and handle management conflict
- Use effective expressions



Report of the programme

It is observed that students UG students are lagging behind in the job arena due to lack of requisite skills for obtaining employment in both Government and private sector. Keeping the significance of the required skills the Department of English resolved to launch a 21 day

Certificate Course on Job Skills and Communication Skills from 25/3/2019 to 14/4/2019. Fifty students have enrolled for the course. We have incorporated the following components in the course.

The conduct of the course turned out to be a successful one as many students acquired skills and are now able to face interviews and participate in GDs confidently.

Attendance Register of

Year, Class

Roll No.	NAME OF THE STUDENT	AUGUST													SEPTEMBER															
		Month	A	U	G	U	S	T													S	E	P	T	E	M	B	E	R	
		Date	02	03	05	06	07	08	13	14	16	17	19	20	21	22	23	24	25	26	27	28	30	03	04	05	06	11	12	13
		Sig. of Lecturer	[Signature]													[Signature]														
		No. of Lectures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
25-19-4002	CH. Mahesh		1	2	3	4	5	5	6	7	8	9	10	10	11	12	13	14	15	16	17	18	19	20	20	21	22	23		
25-19-4007	T. Mounika		1	2	3	4	5	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
25-19-4101	CH. Pallavi		1	2	3	4	5	6	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
25-19-4102	D. Ambika		1	2	3	4	5	6	7	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
25-19-4108	V. Mumsam		1	1	2	3	4	4	5	6	6	7	8	8	9	10	11	11	12	13	14	15	16	17	17	18	19	20		
25-19-3001	B. Sushma		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	16	17	18	18	19	20	20	21	22	23		
25-19-3002	B. Sumalatha		1	2	3	4	5	5	6	7	8	8	9	10	11	12	13	14	15	15	16	17	18	19	20	21	21	22		
25-19-3007	K. Vijay		1	2	3	4	5	6	7	8	9	9	10	11	12	13	14	15	16	17	17	18	19	20	20	21	22	23		
25-19-3009	K. Madhukar		1	2	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	15	16	17	18	19	20	20	21	22		
25-19-3010	M. Gowthami		1	1	2	3	3	3	4	5	5	5	6	7	7	7	8	8	8	9	10	10	10	11	12	13	13	14		
25-19-3012	P. Swapna		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
25-19-3014	S. Madhulatha		1	2	3	4	5	5	6	6	7	8	9	10	11	12	13	14	14	15	15	16	17	18	19	20	20	21		
25-19-3015	V. Bhavani		1	1	1	1	2	3	3	3	3	3	4	5	6	6	7	7	8	8	9	10	10	10	11	11	12	12		
25-19-3201	B. Ashok		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
25-19-3202	J. Ramesh		1	2	3	4	5	6	6	7	8	9	10	11	11	12	13	14	15	16	17	18	19	20	20	21	22	23		
25-19-3203	J. Raghav		1	2	3	4	4	5	6	6	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
25-19-3205	P. Vineela		1	2	3	4	4	5	5	6	6	7	7	8	9	10	10	10	10	10	11	12	12	12	12	12	12	12		
25-19-3206	T. Santhosh		1	2	3	4	5	6	7	8	9	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	18	18		
25-19-2001	A. Navesh		1	2	2	3	4	5	5	6	7	8	8	9	10	11	11	12	13	14	14	15	15	16	16	17	18	19	20	
25-19-2002	B. Suman		1	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	15	16	17	17	18	18	19	20	21	22		
25-19-2003	G. Geetha		1	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	16	16	17	17	18	18	19	20	21	22		
25-19-2005	T. Anil Kumar		1	2	3	4	5	6	6	7	8	8	9	9	10	11	12	13	14	15	15	16	17	17	18	19	20	21	22	
25-19-2201	A. Premchand		1	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	16	17	18	19	19	20	21	22	23			
25-19-2203	B. Dayakar		1	2	2	3	4	5	6	6	7	7	8	8	9	10	10	11	11	12	12	12	13	13	14	14	14			
25-19-2204	B. Naveen		1	2	3	3	4	5	6	7	7	8	9	10	11	12	13	14	14	15	16	17	18	19	20	20	21			
25-19-2205	B. Saiparan		1	2	3	4	4	5	6	7	8	8	9	10	10	11	12	13	13	14	15	15	16	16	17	17	18	19		
25-19-2206	B. Sangeetha		1	2	3	4	5	6	6	7	8	9	10	10	11	12	13	14	14	15	16	17	18	18	19	20	21	22		
25-19-2208	G. Ravanitha		1	2	3	4	4	5	6	7	8	9	10	10	11	12	12	13	14	15	16	17	18	19	20	21	22			
25-19-2209	J. Kartik		1	2	2	3	4	5	6	6	7	8	9	10	11	12	13	14	15	16	17	17	18	19	20	21	22			
25-19-2212	M. Hemalatha		1	2	2	3	3	4	5	6	6	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
25-19-2213	M. Sujanya		1	2	3	4	5	6	7	8	9	10	10	11	12	13	14	15	15	16	17	18	18	19	20	21	22			
25-19-2214	N. Vijaya Suxemi		1	2	3	3	4	5	6	6	7	8	9	10	11	12	13	14	15	15	16	16	17	18	19	20				
25-19-2215	P. Umarani		1	2	2	3	4	5	6	6	7	8	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
25-19-2216	S. Sreedhar		1	2	3	4	4	5	6	7	7	8	8	9	9	10	11	12	13	13	14	15	16	17	18	18	19	20		
25-19-2217	S. Aparna		1	2	3	3	4	4	5	6	7	7	8	9	10	11	12	13	14	15	16	17	17	18	19	20				
25-19-2218	T. Sandhya Rani		1	1	2	3	4	5	6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		

Attendance Register of

Year, Class

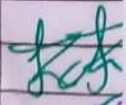
Roll No.	NAME OF THE STUDENT	Month													S E P T E M B E R												
		A U G U S T																									
		Date													Date												
		Sig. of Lecturer													Sig. of Lecturer												
		No. of Lectures													No. of Lectures												
BA		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
25-19-100	T. Prasanna	1	2	2	3	4	5	6	7	8	8	9	10	10	11	12	13	13	14	15	16	17	17	18	19	20	21
25-19-1201	B. Rahul	1	2	3	4	5	5	6	6	7	8	9	10	11	12	12	13	13	14	15	16	16	17	18	18	19	20
25-19-1203	B. Vamsi	1	2	2	3	4	5	6	7	8	8	9	10	11	12	12	13	14	15	15	16	17	18	19	20	21	22
25-19-1204	B. Shireesha	1	2	3	4	5	5	6	7	8	9	10	11	12	12	13	14	14	15	16	17	18	19	20	21	22	22
25-19-1205	Ch. Hareesh	1	1	2	3	4	5	6	6	7	8	8	9	10	10	11	12	13	14	15	16	17	18	19	20	21	22
25-19-1208	G. Nandini	1	2	2	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	20	21	21
25-19-1212	L. Jagan	1	2	3	4	5	6	7	8	9	10	10	11	12	12	13	14	15	16	17	18	19	20	21	22	23	24
25-19-1215	M. Parvathesh	1	2	2	3	4	5	5	6	7	8	9	10	10	11	12	13	14	14	15	16	17	18	19	20	21	22
25-19-1218	N. Ramachary	1	2	3	3	4	5	6	7	8	8	9	10	11	12	13	14	15	16	17	17	18	19	20	21	21	22
25-19-1401	A. Chandravamsi	1	2	3	4	5	5	6	6	7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
25-19-1403	B. Vamsikrishna	1	2	3	4	5	6	7	8	9	10	11	12	12	13	14	15	15	16	17	18	19	20	21	22	23	24
25-19-1413	M. Bindumalika	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
25-19-1601	A. Hunesh	1	2	3	3	4	5	6	6	7	8	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10
25-19-1606	Shahanaq	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
25-19-1921	L. Mahesh	1	2	3	4	5	6	7	8	9	10	10	12	12	14	14	17	17	18	19	20	21	22	23	25	25	25
25-19-1924	M. Santosh	1	1	5	5	6	7	8	9	9	10	10	11	12	13	13	14	15	16	17	18	19	20	20	21	22	
25-19-1926	M. Vinoda	1	2	3	3	4	5	5	6	7	8	8	9	10	11	11	12	13	14	15	15	16	17	18	19	20	21
25-19-1402	A. Deepika	1	2	2	3	4	5	6	7	8	8	9	10	10	11	12	13	13	14	15	16	17	17	18	19	20	21
25-19-1406	B. Kurnali	1	2	3	4	5	5	6	6	7	8	9	10	11	12	12	13	13	14	15	15	16	17	18	19	19	20
25-19-1407	E. Lavanya	1	2	2	2	2	3	4	5	6	7	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
25-19-1408	E. Chandu	1	1	2	3	4	5	6	6	7	7	8	9	10	11	12	13	13	14	14	15	16	17	17	18	19	20
25-19-1411	G. Naveen	1	2	3	4	4	5	5	6	7	8	9	10	11	12	13	13	13	13	13	13	13	13	13	13	13	14
25-19-1415	R. Varun	1	2	2	3	3	4	5	6	6	7	8	9	10	11	12	13	14	14	15	16	17	18	19	20	20	21
25-19-1416	Sk. Chandini	1	2	3	4	5	6	7	8	9	9	10	11	12	13	13	14	15	16	17	18	18	19	20	21	22	23
25-19-1417	S. Satish	1	2	3	4	4	5	5	6	6	7	8	9	10	11	12	12	13	14	15	16	17	18	19	20	21	22
25-19-1602	B. Aparna	1	2	2	3	3	4	5	6	7	8	9	10	10	11	12	13	14	15	16	16	17	18	19	20	21	22
25-19-1603	B. Gundraj	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	17	18	19	20	21	22	22	23
25-19-1605	K. Vinay	1	2	3	4	5	6	7	8	9	10	12	12	13	14	15	16	17	18	19	20	20	21	22	23	24	25
25-19-1606	Shahanaq	1	2	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	22	23	24
02-19-1607	Sk. Karishma	1	2	3	4	5	5	6	6	7	7	8	9	10	11	12	13	14	15	16	17	17	18	19	20	21	22

K. Reddy
 Dept. of English
 Govt. Degree College
 MAHABUBABAD 506101


[Signature]
 Principal
 Govt. Degree College
 Mahabubabad

Attendance Register of

Roll No.	NAME OF THE STUDENT	Month
		Date
		Sig. of Lecturer
		No. of Lectures
BA		
25-19-100	T. Prashanth	
25-19-1201	B. Rahul	
25-19-1203	B. Vamsli	
25-19-1204	B. Shireesha	
25-19-1205	CH. Hareesh	
25-19-1208	G. Nandini	
25-19-1212	L. Jagan	
25-19-1215	M. Parameesh	
25-19-1218	N. Ramachary	
25-19-1401	A. Chandravamsli	
25-19-1403	B. Vamsnikrishna	
25-19-1413	M. Bindumalika	
25-19-1601	A. Hunessh	
25-19-1606	Shahanaj	
25-19-1211	L. Mahesh	
25-19-1214	M. Santhosh	
25-19-1216	M. Vinoda	
25-19-1402	A. Deepika	
25-19-1406	B. Kurari	
25-19-1407	E. Lavanya	
25-19-1408	E. Chandu	
25-19-1411	G. Naveen	
25-19-1415	R. Varun	
25-19-1416	Sk. Chandini	
25-19-1417	S. Sabish	
25-19-1602	B. Aparna	
25-19-1603	B. Gundraj	
25-19-1605	K. Vinay	
25-19-1606	Shahanaz	
02-19-1607	Sk. Karishma	


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16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42											
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25	25	26	27	28	29	30																				
23	24	25	25	26	27	28																				
23	23	24	25	26	27	28																				


 Principal
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Government Degree College, Mahabubabad

ESTD: 1984

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(Mahabubabad, Mahabubabad (Dist.), Telangana-506101).

Website: <https://gdcts.cgg.gov.in/mahabubabad.edu> e-Mail: wgl.jkc.mbad@gmail.com



COMMUNICATION SKILLS IN ENGLISH

- Q1. The origin of the word communication is _____
- A) Communicate
 - B) Communication
 - C) Compute
 - D) Computer
- Q2. Types of words used for verbal communication?
- A) Acronyms
 - B) Simple
 - C) Technical
 - D) Jargons
- Q3. The first language which we learn or speak as a child _____
- A) Jargon
 - B) Dialect
 - C) Mother Tongue
 - D) Vernacular
- Q4. Which of the following shows a positive facial expression?
- A) Frowning while concentrating
 - B) Maintaining eye contact
 - C) Smiling continuously
 - D) Rolling up your eyes
- Q5. By what method we can know what the receiver understood or got the message
- A) transmitting
 - B) feedback
 - C) message
 - D) listening
- Q6. What is a sentence?
- A) A group of ideas.
 - B) A group of words that communicate a complete thought.
 - C) A set of rules to write correctly.
 - D) A set of words that is grammatically correct

Q7. Which type of word is generally not used in verbal communication.

- A) Technical
- B) Simple
- C) Easy
- D) Local Language

Q8. _____ can be presented by face

- A) Gestures
- B) Body Language
- C) Para Language
- D) Expressions

Q9. _____ are a group of words that together act as a grammatical unit.

- A) Imperative
- B) Interrogative
- C) Phrase
- D) Exclamatory

Q10. Using abbreviations in communication leads to which type of communication barrier

- A) Language/ Linguistic
- B) Physical
- C) Cultural
- D) Organisational

Q11. which can be used to overcome the communication barrier

- A) Using a translator
- B) By writing a letter
- C) Not communicating at all
- D) Using your own language

Q12. Which of the following is NOT a communication barrier?

- A) Linguistic barrier
- B) Interpersonal barrier
- C) Financial barrier
- D) Organisational barrier

Q13. Straight body posture shows what?

- A) Pride
- B) Professionalism
- C) Confidence
- D) Humility

Q14. Which of the following is a positive facial expression?

- A) Staring hard
- B) Wrinkled forehead
- C) Looking somewhere else
- D) Nodding while listening

Q15. Which type of words should be used for good communication?

- A) Acronyms
- B) Technical
- C) Jargons
- D) Simple

Q16. Sending a letter is which type of communication?

- A) Listening
- B) Writing
- C) Speaking
- D) Reading

Q17. Which of the following is not an element of the communication cycle?

- A) Channel
- B) Receiver
- C) Time
- D) Sender

Q18. Written communication can be classified in which type of communication?

- A) Non-verbal
- B) Verbal
- C) Visual
- D) None of these

Q19. is the exchange of messages in the communication cycle.

- A) Transmitting
- B) Listening
- C) Message
- D) Feedback

Q20. The abilities to communicate properly are:

- A) read
- B) write
- C) speak
- D) all of these

Q21. Which of the following is an example of negative feedback?

- A) You can dance better.
- B) Your Dance was good, but you can do better.
- C) Your Dance skill is not really good. You have to practise more.
- D) None of the above

Q22. is not a communication barrier?

- A) Language
- B) Culture
- C) Habits
- D) Physical

Q23. The communication cycle does not include.....

- A) sender
- B) message
- C) receiver
- D) programming

Q24. Which of the following is quick and clear method of communication

- A) e-mail
- B) notices/posters
- C) face-to-face informal communication
- D) business meetings?

Q25. Which method is good for taking leave in the office.

- A) Website
- B) notices/posters
- C) e-mail
- D) business meetings?

Q26. The word Commūnicāre means _____ in Latin.

- A) to deliver
- B) to share
- C) to present
- D) to sacrifice

Q27. To understand the message properly the receiver, need to _____ the message properly.

- A) transmit
- B) throw
- C) listen
- D) ignore

Q28. Keeping shoulders straight right and body relaxed is an example of:

- A) Facial Expressions
- B) Posture
- C) Gesture
- D) Eye contact

Q29. Aural communication is based on

- A) Body language
- B) Language and tone of voice
- C) Facial expressions
- D) Listening and Hearing

Q30. Visual communications are dependent on what factors?

- A) Signs, symbols, and pictures
- B) Text messages
- C) Posture
- D) Body language

Q31. What is the final step in the communication cycle?

- A) Encoding
- B) Decoding
- C) Feedback
- D) Receiving

Q32. Which type of feedback supports student development from their current level of achievement?

- A) Specific Feedback
- B) Descriptive Feedback
- C) Non-Specific Feedback
- D) None of the above

Q33. If there is the absence of feedback, then it will lead to

- A) Mistrust
- B) Communication Barrier
- C) Interference
- D) None of the above

Q34. It is a word used in place of a noun that is

- A) Pronoun
- B) Verb
- C) Adverb
- D) Preposition

Q35. A word used to express emotion and is often followed by an exclamation mark is called

- A) Preposition
- B) Conjunction
- C) Adverb
- D) Interjection

Q36. Which part of the sentence contains two independent clauses joined by conjunction?

- A) Compound Sentences
- B) Simple Sentences
- C) Complex Sentences
- D) Compound-Complex Sentences

Q37. The process in which the receiver interprets and understands the message is called

- A) Decoding
- B) Encoding
- C) Feedback
- D) None of these

Q38. is an instance of non-verbal communication.

- A) A speech
- B) Proximity
- C) A notice
- D) An e-mail?

Q39. Which of the following is an example of oral communication?

- A) Newspapers
- B) Letters
- C) Phone call
- D) e-mail

Q40. "Two girls talking over a phone" – is an example of...

- A) interpersonal communication
- B) written communication
- C) small group communication
- D) public communication

Q41. Pointing finger to something is an example of...

- A) Expressions
- B) Gestures
- C) Body Language
- D) Para Language

Q42. which of the following includes the tone, speed, and volume of voice

- A) Eye Contact
- B) Body Language
- C) Para Language
- D) Gestures

Q43. Which communication method does not require any language to understand?

- A) Verbal
- B) Non-Verbal
- C) Visual
- D) None of these

Q44. Which is the suitable method to overcome communication barriers?

- A) Use visuals
- B) Take the help of a translator
- C) Always be respectful in other's opinion
- D) All the Above

Q45. Identify the noun(s): Radhika went to the park for a picnic.

- A) Radhika and picnic
- B) park and picnic
- C) Radhika and Park
- D) went

Q46. Which one of the following is prepositions?

- A) And
- B) The
- C) Under
- D) Because

Q47. Rakesh is playing with football – Identify the verb

- A) Rakesh
- B) Football
- C) Playing
- D) None of the above

Q48. The frog jumped quickly – Identify the adverb

- A) The
- B) Quickly
- C) jump
- D) frog

Q49. Identify the Pronoun(s): Raju is a brave boy. He went to the forest at night.

- A) He
- B) Raju
- C) brave
- D) boy

Q50..... is not a communication barrier?

- A) Language
- B) Culture
- C) Physical
- D) Habit



GOVERNMENT DEGREE COLLEGE

MAHABUBABAD - MAHABUBABAD(Dist.), Telangana-506101.

Accredited by NAAC with "B" Grade (CGPA 2.44/4.00)



DEPARTMENT OF ENGLISH

Certificate

-----of Participation and Completion-----

This is to certify that **M. Bindumalika, II B.A EM, GOVERNMENT DEGREE COLLEGE, MAHABUBABAD** has participated and successfully completed the certificate course on **“Basic Communicative Skills in English”** Conducted by Department of English, Government Degree College, Mahabubabad, Mahabubabad (Dist.), Telangana, INDIA commenced from 02-08-2020 to 26-09-2020.

Certificate generated on Dec, 07 of 2020.


Sri.P. Ram Reddy

Convenor & Lecturer in English
Government Degree College,
Mahabubabad



Sri.R. Venugopal
IQAC Coordinator
Government Degree College,
Mahabubabad


Principal & IQAC Signperson
Govt. Degree College
Mahabubabad

Dr.G.Pooshaiah
Principal & President
Government Degree College,
Mahabubabad



VEDIC MATHEMATICS
CERTIFICATE COURSE
DURING THE ACADEMIC YEAR 2019-2020

Organized by
DEPARTMENT OF MATHEMATICS
GOVERNMENT DEGREE COLLEGE MAHABUBABAD

Certificate Course in Vedic Mathematics

Syllabus:

1. Ekadhikena Purvena : By one more than the previous.
2. Nikhilam Navatashcaramam : Dashatah All from 9 and last
3. Urdhva Tribhagyam : vertically and crosswise
4. Paravatyaya Yojayet : Transpose and adjust
5. Shunyam Saantasanyccaye : when sum is same, that sum is zero
6. Anurupye Shunyamanat : If one is in ratio the other is equal
7. Sankalana vyavakalanabhyam : by addition and subtraction.
8. Purnapuranaabhyam : By the completion or non-completion.
9. Chalana Kalanabhyam : Difference and similarities.
10. Yavadunam : Help in finding squares
11. Vyashtisamanstih : part and whole
12. Shesanyankena charamena : converting fractions to decimals.
13. Sopantyadvaya mantyam : The ultimate and twice the penultimate
14. Ekanyunena purvena : By one less than the previous
15. Gunita samuchaya : Find correctness in factorization
Problems
16. Gunakasamuchayam : factor of the sum is equal to the sum of
Factor

Convener

Principal

Time table (Time 3.00 pm to 4.00 pm)

S.No	Topic	No of Periods
1	Ekadhikena Purvena	01
2	Nikhilam Navatashcaramam	
3	Urdhva Tribhagyam	
4	Paravatya Yojayet	
5	LAB	
6	Shunyam Saantasanyccaye	
7	Anurupye Shunyamanat	
8	Sankalana vyavakalanabhyam	
9	Purnapurabhyam	
10	LAB	
11	Chalana Kalanabhyam	
12	Yavadunam	
13	Vyashtisamanstih	
14	Shesanyankena charamena	
15	LAB	
16	Sopaantyadvaya mantyam	
17	Ekanyunena purvena	
18	Gunita samuchaya	
19	Gunakasamuchayam	
20	LAB	
	Total	30

Convener

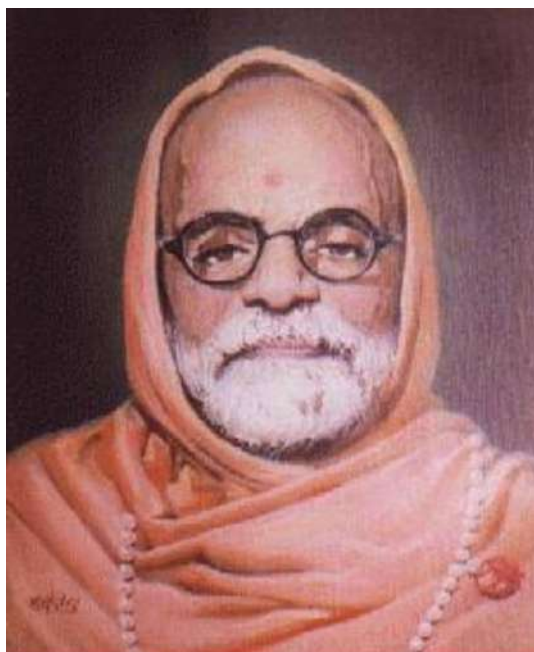
Principal

Introduction:

Vedic Mathematics the Ancient art of superfast Calculations learn Ancient Techniques, perform complicated calculations and play with maths. Application of the Sutras improves your computational skills in wide area of problems. The knowledge of such methods enables you both speed and accuracy strictly based on rational and logical reasoning. These techniques will help you improve your talent and creativity. Eradicates your fear of Mathematics and instills confidence. Improves your calculation speed and numerical skills. Sharpens your brain .

Jagaduguru shri Bharathi Krishna Tirthaji

1884 – 1960 is called the Father of vedic maths. He took top self-realization at shringeri matha with the guidance of shri Shankracharya, shri Sachidananda Shiva Abhinava narsimha Saraswati, He spent 7 years in deep meditation and study of Vedanta and lived the life of a sadhu form 1911 to 1918 . During this period, the 16 Sutras of Vedic Maths were made.



Description:

The Sanskrit word Veda is derived from the root Vid, meaning to know without limit. The word veda covers all veda-sakhas known to humanity. The veda is a repository of alool knowledge, fathomless, ever revealing as it is delved deeper. Vedic Mathematics is the name given to a supposedly ancient system of calculation which was discoverd frp, the Vedas be

Course Benefits : Let mind be your own calculator that tables you to solve complex math calculations within seconds. Feel positive and stand out in the crowd with your exceptional problem solving techniques. Build crfeativity and foster aptitude simultaneously while beating competitors in diverse fields. Lays strong foundation that will stay with you for loife time, opening a wide range of career opportunities.

Certificate form vedic Maths forum India : After the successful completion of the course, students will be acknowledged with a certificate that will give them an edge over others at different curricular events.

TALLY
CERTIFICATE COURSE

DURING THE ACEDMIC YEAR 2018-2019



Organized by

DEPARTMENT OF COMMERCE

GOVT. DEGREE COLLEGE

MAHABUBABAD -506101.

LAB WORK: 1

Create a company with the following details.

Name : SV Traders
Address : Near KG Road, Atmakur
Email : svtraders@gmail.com
Maintain : Accounts only
Financial year from: 1-4-2018
Books beginning from: 1-4-2018
Use security control: No

Procedure:

Step 1: Go to Gate way of Tally and press Alt+F3 then Click Company Info, on the button panel.

Step 2: From the Company Info menu, select Create Company option, Now Company creation Screen will display.

Step 3: Type the following details in appropriate fields.

<u>Field</u>	<u>Type</u>
Name:	SV Traders
Address:	KG Road, Atmakur
Email :	svtraders@gmail.com
Maintain:	Accounts only
Financial year from:	1-4-2018
Books beginning from:	1-4-2018
Use security control:	No

Step 4: After entering the above details press Enter until the last field and look at the new dialog box on the screen.

Step 5: Accept Yes or type Y, the new company has been created.

LAB WORK: 2

Create Ledger Account under appropriate Groups from the following trial balance

<u>Ledger Name</u>	<u>Debit</u>	<u>Credit</u>
Purchases	26,000	
Sales		42,000
Daily Wages	3,000	
Debtors	22,000	
Machinery	10,000	
Commission		2,000
Cash	5,000	

Capital 22,000

66,000

66,000

Closing stock : 6,000

Procedure:

Step 1: Create a Company and then go to Gateway of Tally then select Accounts Info. Then select Ledger option and select Create from Single or Multiple Ledger.

<u>S.No.</u>	<u>Name of Ledger</u>	<u>Group</u>	<u>Opening balance</u>
1	Purchases	Purchases	26,000
2	Sales	Sales	42,000
3	Wages	Direct expenses	3,000
4	Debtors	Sundry debtors	22,000
5	Machinery	Fixed Asset	10,000
6	Commission Received	Indirect income	2,000
7	Capital	Capital	22,000
8	Stock	Stock in hand	

Step 2: To enter the opening balance for Cash Account, alter cash account by choosing, Gateway of Tally and select Accounts Info. Then after select Ledger and select Alter. enter the opening balance of cash account

Step 3: To enter closing stock, Go to Gateway of Tally and select Accounts Info. Then after select Ledger and select Alter option and choose the Stock Account in the field of closing balance, first enter the closing date and enter the closing balance

Step 4: To display ledger select Gateway of Tally and select Accounts Info. Then select Ledger and choose Display. Then the Ledger will be created.

LAB WORK: 3

Create a company (SVDC), ledgers and appropriate voucher types for the following transactions 2014 April 1

Introduced Capital	Rs. 1,00,000
Purchased Furniture	Rs. 50,000
Paid Salary	Rs. 10,000
Received Commission	Rs. 3,000
Computer Purchased	Rs. 20,000

Procedure:

Step1: Press Alt+F3 to Create a Company from the Company Info menu, then select Create Company as - (Name: SVDC)

Step 2: Create ledger from Gateway of Tally then select Accounts Info and then select Ledger and Create from Single or Multiple Ledger.

<u>S.No.</u>	<u>Name of Ledger</u>	<u>Group</u>	<u>Opening balance</u>
--------------	-----------------------	--------------	------------------------

1	SVDC	Capital A/c
2	Purchases	Purchases A/c
3	Furniture	Fixed assets
4	Salary	Indirect expenses
5	Commission Received	Indirect income
6	Computer	Fixed assets

Step 3: Create Voucher by selecting Gateway of Tally and select Accounting Vouchers. For first entry, (Introduced capital Rs.1, 00,000) Click 'F6' for receipt voucher, press the space bar when the cursor is in the particulars field. Select Capital account and fill the amount.

Step 4: Accept the screen as Yes or Y in Dialogue box appears.

Step 5: follow the same process for the remaining transactions and complete the all voucher postings.

<u>Transaction</u>	<u>Accounts involved</u>	<u>Vouchers</u>	<u>Amount</u>
Introduced Capital	Cash account, Dr. Capital	Receipt	Rs.1,00,000
Purchased Furniture	Furniture account, Dr. Cash	Payment	Rs. 50,000
Paid Salary	Salary account, Dr. Cash	Payment	Rs.10,000
Received Commission Rs.3,000	Cash account, Dr. Commission	Receipt	
Purchased Computer	Computer account, Dr. Cash	Payment	Rs. 20,000

Step 6: To get Trial balance go to Gateway of Tally and select Display then select Trial balance

Step 7: To get Profit & Loss account go to Gateway of Tally and select Profit & Loss Account

Step 8: To get Balance Sheet go to Gateway of Tally and select Balance Sheet.

LAB WORK: 4

Prepare Final accounts of SV. Agencies, Atmakur, as on 31-03-2018 from the following transactions

Started business with Rs.4, 00,000

Opened Current account with Syndicate Bank Rs.2, 00,000

Purchased Machinery Rs.35, 000

Purchased goods from Fasi traders Rs.80,000

Sold goods to Vijay Rs.1,40,000

Returned goods to Fasi Traders Rs. 12,000

Vijay returned goods for Rs.7,000

Paid wages Rs.2,000

Paid rent Rs.8,000

Interest received Rs.2,000

Adjustments 1. Closing stock Rs.14,000

2. Depreciate Machinery Rs.400

3. Rent outstanding Rs.1,000

4. Prepaid wages Rs 500

Procedure:

Step 1: Create a Company from the Company Info menu , select Create Company -(SV. Agencies)

Step 2: Create ledgers from Gateway of Tally and select Accounts Info. Then select Ledger and select Create from Single or Multiple Ledger.

<u>S.No.</u>	<u>Name of Ledger</u>	<u>Group</u>	<u>S.No.</u>	<u>Name of Ledger</u>	<u>Group</u>
1	Capital	Capital	9	Sales returns	Sales
2	Syndicate Bank	Bank account	10	wages	Direct expenses
3	Machinery	Fixed asset	11	Rent	Indirect expenses
4	Purchase	Purchase	12	Interest	Indirect income
5	Fasi Traders	Sundry Creditors	13	Stock	Stock in hand
6	Sales	Sales	14	Depreciation	Indirect expenses
7	Vijay	Sundry Debtors	15	Rent outstanding	Current liability
8	Purchase returns	Purchase	16	Prepaid wages	Current Asset

Step 3: Create Voucher from Gateway of Tally and select Accounting Vouchers with the help of following table, enter the transactions by using appropriate voucher types.

<u>Transaction</u>	<u>Accounts involved</u>	<u>Vouchers</u>	<u>Amount</u>
Started business	Cash account Dr Capital	Receipt	4,00,000
Opened a/c with Syndicate Bank	Syndicate Bank Dr Cash	Contra	2,00,000
Purchased Machinery	Machinery a/c Dr Cash	Payment	35,000
Purchased goods from Fasi traders	Purchase a/c Dr Fasi traders	Purchase	80,000
Sold goods to Vijay 1,40,000	Vijay account Dr Sales	Sales	
Returned goods to Fasi Traders	Fasi Traders Dr Purchase returns	Debit Note	12,000
Vijay returned goods	Sales returns a/c Dr Vijay	Credit Note	7,000
Paid wages	Wages a/c Dr Cash	Payment	2,000
Paid rent	Rent a/c Dr Cash	Payment	8,000
Interest received	Cash a/c Dr Interest	Receipt	2,000
Depreciation on Machinery	Depreciation Dr Machinery	Journal	400
Rent outstanding	Rent a/c Dr Rent outstanding	Journal	1,000
Prepaid wages 500	Prepaid wages Dr Cash	Journal	

Step 4: To enter closing stock go to Gateway of Tally and select Accounts Info. and then select Ledger and select Alter and Choose the Stock account. In the field of closing balance, first enter the closing date and enter the closing balance

Step 5: To get Profit & Loss account go to Gateway of Tally and select Profit & Loss Account (Set period: From 1-4-2018, To 31-3-2018)

Step 6: To get Balance Sheet go to Gateway of Tally and select Balance Sheet (Set period: From 1-4-2018, To 31-3-2018).

LAB WORK: 5

Enter the following transactions in appropriate vouchers of SV.Traders, Atmakur and Prepare Bank reconciliation statement for the month of June 2018

01-06-2018 : Started business with Rs.5,00,000

01-06-2018 : Deposited cash into Canara Bank Rs.2,00,000

01-06-2018 : Withdraw cash from Canara Bank Rs.30,000

01-06-2018 : Issued a cheque No.12511 to Fasi for Rs.80,000

01-06-2018 : Received a cheque No.10512 from Bindu Rs.10,000

02-06-2018 : Paid rent by cheque No.12512 Rs 6,000

Procedure:

Step1: Create a Company from the Company Info menu, select Create Company - (SV.Traders, 1-4-2018)

Step 2: Create relevant ledgers and Vouchers

<u>Transaction</u>	<u>Accounts involved</u>	<u>Group</u>	<u>Vouchers</u>	<u>Amount</u>
Started business	Cash account Dr Capital	Cash Capital	Receipt	5,00,000
Deposited cash into Bank	Canara Bank Dr Cash	Bank Cash	Contra	2,00,000
Withdraw cash from Canara bank	Canara Bank Dr.Cash	Bank Cash	Contra	30,000
Issued a cheque to Fasi	Fasi account Dr Canara Bank	Sundry Creditors	Payment	30,000
Received a cheque from Bindu Receipt 10,000	Canara Bank Dr Bindu		Sundry Debtors	
Paid rent by cheque	Rent account Dr Canara Bank	Indirect Expense	Payment	6,000

Step3: To see Balance sheet select go to gate way of Tally and select Balance sheet.

Step4: To see Cash/Bank book select gate way of Tally and select Display option and then select A/c Books then select Cash/Bank book.

Lab Work 6:

Create a company, Ledgers and appropriate vouchers and check the Balance sheet for the following Program.

1. Bindu started a new business with 5,00,000/-

2. Purchase as Fallows :-

- i) Computers – 15 Sets Each one 16,000/-
- ii) Pen drives – 50 No's Each one 350/-
- iii) Headphones – 35 Sets Each one 170/-

3.Purchase Returns:-

- i) Computers – 3 Sets
- ii) Pen drives – 7 No's
- iii) Headphones – 5 Sets

4. Sales as Fallows:-

- i) Computers – 12 Sets each one 25,000/-
- ii) Pen drives – 43 No's each one 550/-
- iii) Headphones – 30 Sets each one 300/-

5. Sales Returns:-

- i) Pen drives – 8 No's

- ii) Computers – 2 Sets
- iii) Headphones – 5 Sets

Procedure:

Step1: Create a Company from the Company Info menu , select Create Company -(SV. Traders)

Step 2: Create ledgers by selecting Gateway of Tally and select Accounts Info. Then select Ledger and select Create from Single or Multiple Ledger.

Step 3: after creating Ledgers Create Units of measure as select gate way of Tally and select Inventory Info and then select Units of measure. In units of measure create required units as No's and Sets.

Step 4: Then go to gate way of Tally and select Inventory Info and then select Stock Items. Select create option under single or multiple stock items. In Stock item creation screen fill all the stock item names and group and quantities.

Step 5: Then go to gate way of Tally then select Accounting vouchers option then voucher screen will be appeared. First enable the inventory settings by pressing F11 and then F2 and accept them. Then we can able to create Debit Note and Credit Note voucher entries.

Step 6: Do the all postings as per given and save them. After that go to gate way of Tally and select display and then Balance sheet and then after select Display and select A/c Books and select Purchase or Sales Register.

Lab Work 7:

Create a company, Ledgers and appropriate vouchers for the following Tally program and display the balance sheet.

1. Mr.Ganesh started a new small business with 50,000/-
2. Purchase order given to Anand Traders with Order No:301 – It contain fallowing stock items
 - a. Liril soaps 10 Peaces Each one 150/-
 - b. Lux soaps 20 Peaces Each one 200/
 - c. Dove soaps 15 Peaces Each one 170/-
 - d. Santhoor soaps 10 Peaces Each one 130/-
 - e. Pears soaps 25 Peaces Each one 220/-
3. Received goods from Anand Traders Order No: 301.
4. Sales order received to Sindhu Traders with Order No:205 – It contain fallowing stock items
 - a. Liril soaps 8 Peaces Each one 200/-
 - b. Lux soaps 18 Peaces Each one 230/-
 - c. Dove soaps 10 Peaces Each one 210/-
 - d. Santoor soaps 6 Peaces Each one 160/-
 - e. Pears soaps 20 Peaces Each one 250/-
5. Goods given to Sindhu Traders Order No:205
6. Cash Paid to Anand Traders
7. Cash From Sindhu Traders.

Procedure:

Step1: Create a Company from the Company Info menu , select Create Company -(SV. Traders)

Step 2: Create ledgers by selecting Gateway of Tally and select Accounts Info. Then select Ledger and select Create from Single or Multiple Ledger.

Step 3: after creating Ledgers Create Units of measure as select gate way of Tally and select Inventory Info and then select Units of measure. In units of measure create required units as No's and Sets.

Step 4: Then go to gate way of Tally and select Inventory Info and then select Stock Items. Select create option under single or multiple stock items. In Stock item creation screen fill all the stock item names and group and quantities.

Step 5: Then go to gate way of Tally then select Accounting vouchers option then voucher screen will be appeared. First enable the inventory settings by pressing F11 and then F2 and accept them by

enabling the Order placement option for Purchase order and Sales order. Then we can able to create Purchase order and Sales order.

Step 6: Do the all postings as per given and save them. After that go to gate way of Tally and select display and then Balance sheet and then after select Display and select A/c Books and select Purchase or Sales Register.

Lab Work 8:

Create a company, Ledgers and appropriate vouchers for Godown management and postings of Physical voucher for following program and Display the Balance sheet.

1. Mr.Ramana Started a new business with 10,00,000/-
2. Purchase LED Tv's 10 Sets Each one 12,000/-
3. Above Stock Under Autonagar Godown.
4. Purchase Air condition's (A/C's) 10 Sets Each one 40,000/-
5. Above Stock Under Ganesh Godown.
6. 10 Sets LED Tv's Transfer to Main Location
7. 5 Sets Air condions (A/C's) Transfer to Main Location
8. Sales as fallows:-
 - a. LED Tv's 8 Sets Each one 20,000/-
 - b. Air condition's (A/C's) 3 Sets Each one 55,000/-
 - c. Air condition's (A/C's) 4 Sets Each one 51,000/- from Ganesh Godown

Procedure:

Step1: Create a Company from the Company Info menu, select Create Company -(SV.Traders)

Step 2: Create ledgers by selecting Gateway of Tally and select Accounts Info. Then select Ledger and select Create from Single or Multiple Ledger.

Step 3: after creating Ledgers Create Units of measure as select gate way of Tally and select Inventory Info and then select Units of measure. In units of measure create required units. Then go to gate way of Tally and select Inventory info and then select Godown and Create Godown names.

Step 4: Then go to gate way of Tally and select Inventory Info and then select Stock Items. Select create option under single or multiple stock items. In Stock item creation screen fill all the stock item names and group and quantities.

Step 5: Then go to gate way of Tally then select Accounting vouchers option then voucher screen will be appeared. First enable the inventory settings by pressing F11 and then F2 and accept them by enabling the storage settings to Yes. Then we can able to create Physical stock voucher by pressing Alt+F7.

Step 6: Do the all postings as per given and save them. After that go to gate way of Tally and select display and then Balance sheet.

COMMUNICATIVE SKILLS IN HINDI
CERTIFICATE COURSE
DURING THE ACADEMIC YEAR 2018-2021



Organized by

DEPARTMENT OF HINDI

GOVT. DEGREE COLLEGE

MAHABUBABAD -506101.

IMPORTANCE OF CERTIFICATE COURSES:

Due to increase in competition in various areas like Finance, Information Technology, Engineering, Medicines, Project, Management, Teaching, Marketing etc., getting a certificate course has become necessary for a student to stand ahead of others in competition.

MAIN AIMS OF THIS COURSE:

- To help the students specifically strengthen listening and speaking skills.
- Students will slowly introduced to the Hindi script for some writing and reading practice.
- By using various teaching materials such as text books, audios, videos, Internet sites, news papers, movies, news channels and songs etc., developing the slang of Hindi language.

COURSE OUTCOMES:

- To make the students familiar with basic Hindi.
- To impart reading and writing skills of Hindi language.
- To develop the individuality skills in Hindi.
- To interact with non-native speakers of Hindi.
- To fulfill the purpose of jobs in various professional fields.

Student Attendance Register

Certificate Course
on **Communicative Skills**
in **Stu**

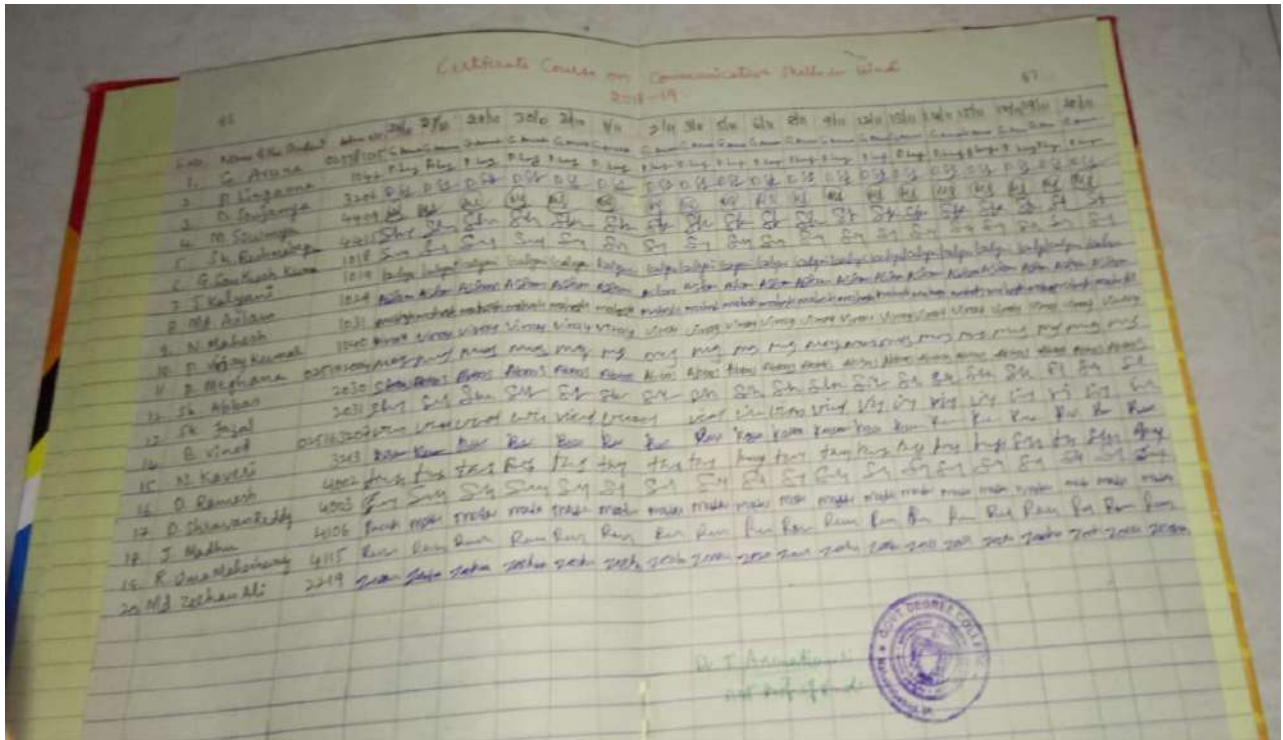
Attendance Register of
Year, Class 2018-19

Roll No.	NAME OF THE STUDENT	Month	Date												No. of Lectures														
			26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	G. Aruna	02/10/18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
2	P. Linganna	1042	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
3	D. Soujanya	3206	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
4	M. Sowmya	4489	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
5	Sk. Reshma Begum	4415	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
6	G. Sauthosh Kumar	1018	-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
7	J. Kalyani	1019	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
8	Md. Adlam	1029	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
9	N. Mahesh	1031	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
10	P. Vinay Kumar	1040	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
11	D. Meghana	0257200	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
12	sk. Abbas	2030	-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
13	sk. Fazal	2031	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
14	B. Vinod	025763207	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
15	N. Kavali	3213	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
16	D. Ramesh	4002	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
17	D. Shraavan Reddy	4003	-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
18	J. Madhu	4106	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
19	R. Uma Maheswary	4115	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
20	Md. Zeeshan Ali	2289	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			

Dr. J. Arunachalam
 Asst. Prof. of Hindi



The certificate has been conducted for 30 hours from 26-10-2018 to 20-11-2018.



Record of Student signatures



Hindi certificate course

CERTIFICATE COURSE (2019-2020)
CERTIFICATE COURSE
ON COMMUNICATIVE SKILLS IN HINDI

IMPORTANCE OF CERTIFICATE COURSES:

Due to increase in competition in various areas like Finance, Information Technology, Engineering, Medicines, Project, Management, Teaching, Marketing etc., getting a certificate course has become necessary for a student to stand ahead of others in competition.

MAIN AIMS OF THIS COURSE:

- To help the students specifically strengthen listening and speaking skills.
- Students will slowly introduced to the Hindi script for some writing and reading practice.
- Bye using various teaching materials such as text books, audios, videos, Internet sites, newspapers, movies, news channels and songs etc., developing the slang of Hindi language.

COURSE OUTCOMES:

- To make the students familiar with basic Hindi.
- To impart reading and writing skills of Hindi language.
- To develop the individuality skills in Hindi.
- To interact with non-native speakers of Hindi.
- To fulfill the purpose of jobs in various professional fields.

Students Attendance Register

Certificate Course on Communicative Skills in Hindi

Attendance Register of Certificate Course Year, Class 2019-2020

Sl. No.	NAME OF THE STUDENT	Month	Date	No. of Lectures																												Total No. of Lectures attended by Students		
				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		31	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		29	30
1	J. Rajesh B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	J. Rajesh "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3	P. Vinod "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
4	A. Premchand B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
5	B. Dayakar "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
6	B. Sangeetha B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
7	T. Simhadri B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
8	B. Shiksha B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
9	G. Venkanna B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
10	M. Sanketh B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
11	G. Lavanya "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
12	B. Raksh "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
13	G. Prakashraj M.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
14	G. Supriya B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15	G. Vanaja B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
16	M. Anam B.A.	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
17	D. Laksh "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
18	K. Shalika "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
19	Ch. Pallavi "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
20	B. Sui Parvati "	03/09/19	04/09/19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Dr. J. Anurag Kumar
Principal, G. P. S. U.

The Certificate Course has been conducted from 03-09-2019 to 27-09-2019 for 60 hours daily 2 hours.

Certificate Course on Communicative Skills in Hindi

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Sl. No.	Name of the Student	3/9/19	4/9/19	5/9/19	6/9/19	7/9/19	8/9/19	9/9/19	10/9/19	11/9/19	12/9/19	13/9/19	14/9/19	15/9/19	16/9/19	17/9/19	18/9/19	19/9/19	20/9/19	21/9/19	22/9/19	23/9/19	24/9/19	25/9/19	26/9/19	27/9/19	28/9/19	29/9/19	30/9/19	31/9/19	Total	
1	J. Rajesh B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	J. Rajesh "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
3	P. Vinod "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
4	A. Premchand B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
5	B. Dayakar "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
6	B. Sangeetha B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
7	T. Simhadri B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
8	B. Shiksha B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
9	G. Venkanna B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
10	M. Sanketh B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
11	G. Lavanya "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
12	B. Raksh "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
13	G. Prakashraj M.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
14	G. Supriya B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15	G. Vanaja B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
16	M. Anam B.A.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
17	D. Laksh "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
18	K. Shalika "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
19	Ch. Pallavi "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
20	B. Sui Parvati "	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Dr. J. Anurag Kumar
Principal, G. P. S. U.

Students participated in Hindi Certificate Course





Government Degree College, Mahabubabad

ESTD: 1984

Affiliated to Kakatiya University

Accredited by NAAC & ISO 9001:2015 Certified

(Mahabubabad, Mahabubabad (Dist.), Telangana-506101).

Website: <https://gdcts.cgg.gov.in/mahabubabad.edu> e-Mail: wgl.jkc.mbad@gmail.com



YOGA & AEROBIC REPORT
CERTIFICATE COURSE
DURING THE ACEDMIC YEAR 2021-2022



Organized by
DEPARTMENT OF ENGLISH & TELUGU
GOVT. DEGREE COLLEGE
MAHABUBABAD -506101.

YOGA & AEROBIC REPORT ACADEMIC YEAR-2015-2021

Mahabubabad, Govt. Degree College Principal Dr. Vijaya Lakshmi conducted Yoga & Aerobic classes for students from 7th Feb 2022 to program of period 60 days. The students who participate in this, program will get certificate, she guide the students and spokes about the importance of Yoga / Aerobics. Yoga is an ancient art that connects the mind and body. It is an exercise that we perform by balancing the elements of our bodies. In addition, it helps us meditate and relax. Moreover, yoga helps us keep control of our bodies as well as mind. It is a great channel for releasing own stress and anxiety.

All the college faculty participated and encouraged the students to do Yoga. Its system & physical and mental discipline which originated in India long ago. In this program, Yoga & Aerobics trainer said yoga has many branches like Raja yoga, karma yoga, Bhakti yoga and Hatha yoga. But we practice here Hatha Yoga, which consists of certain exercises called Asanas students also actively participated and enjoyed the yoga & Aerobic classes.

INTRODUCTION



Meaning of Yoga

- ❖ **The word Yoga has been derived from the Sanskrit word “ YUG ” which means to join or to Unite.**
- ❖ Yoga is the Union of the Individual soul with the Absolute or Divine Soul.
- ❖ **Yoga also means the unification of physical, mental, intellectual and spiritual aspects of human being.**
- ❖ **Yoga is the science of development of a person’s consciousness.**



Importance of Yoga

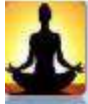
1. Physical Purity.
2. Cures and Prevention from Disease.
3. Reduces Mental Tension.
4. Beautification of Body.
5. Provides Relaxation.
6. Keeps the Correct Posture of Body.
7. Yoga can be Performed Easily.
8. Spiritual Development.
9. Increases Flexibility.
10. Reduces Obesity.
11. Improves Health.
12. Enhances Moral and Ethical Values.



Importance of Yoga

1. Physical Purity

- ❖ Internal organs of our body can be cleansed by various Yogic exercises.
- ❖ As per Ayurveda, our body is made of Vaat, Pitt and Kaph. To remain healthy, balance of vaat , Pitt and kaph in our body is necessary.
- ❖ Dhoti, Nauli, Basti, Kapalbhathi, Tratak etc. are such yogic exercises which keep the internal organs of our body in Clean state.



Importance of Yoga

2. Cures and Prevention from Disease

- ❖ Yoga not only prevents many diseases but also cures them.
- ❖ Various Yogic exercises increases the immunity of the body.
- ❖ Diseases such as Bronchitis, Sinusitis, Arthritis, Gastritis, Asthma, High bloods pressure, Stress , Back pain, Urinary disorders etc. can be prevented as well as can be cured by yogic exercises.



Importance of Yoga

3. Reduces Mental Tension

- ❖ Yoga helps in reducing the mental tension. Pratyahar, Dharana and Dhyan plays vital role in reducing the mental stress.
- ❖ Asanas like Makarasana, Shavasana, Shalabhasana and Bhujangasana are beneficial for releasing stress and tension.



Importance of Yoga

4. Reduces Obesity & Beautification of Body

- ❖ Obesity is becoming a worldwide problem.
- ❖ Obesity makes a person prone to many diseases.
- ❖ Research studies have shown that mental tension and stress could be one of the reason for obesity.
- ❖ Pranayam & Yogica Asanas releases mental stress, reduces obesity and makes body strong and perfect.
- ❖ Mayurasana is one such asanas.



Importance of Yoga

5. Provides Relaxation

- ❖ Rest and relaxations are essentials for removing fatigue.
- ❖ Research studies have shown that Yogic asanas and Panayama relaxes the body and mind.
- ❖ Padamasana , Shavasana and Makarasana are some of such asanas.



Importance of Yoga

6. Keeps the Correct Posture of Body

- ❖ Postural deformities are very common nowadays due to lifestyle followed which effects efficiency negatively.
- ❖ Doing Yoga asanas regularly , a person can not only have the correct posture, but can also cure the postural deformities .
- ❖ Vajrasana , Sarvangasana , Mayurasana , Chakrasana ,Bhujangasana etc.



Importance of Yoga

7. Yoga can be Performed Easily

- ❖ In fast life of today, every one claims to be very busy , hardly any time left for self.
- ❖ Doing Yogic exercise need only a small space , where as others need much of money and time.



Importance of Yoga

8. Spiritual Development

- ❖ One can have good control on mind by doing Yogic exercises and move towards the spiritual heights.
- ❖ Padmasana and Siddhasana enhances the meditation power.
- ❖ Pranayam is also useful for spiritual development.



Importance of Yoga

9. Increases Flexibility

- ❖ Flexibility is very significant as it helps in movement of the body efficiently .
- ❖ Muscles becomes more flexible and prevents sports and other injuries.
- ❖ Chakrasana , Dhanurasana , Halasana , Bhujangasana etc. are very beneficial in increasing body flexibility.



Importance of Yoga

10. Reduces Obesity

- ❖ Very common problem now a days.
- ❖ Regular Yogic exercise like pranayama and asanas reduces obesity .
- ❖ Research studies have shown that obesity is also caused by mental stress and tension.
- ❖ Meditative asanas are the perfect solution for this condition.



Importance of Yoga

11. Improves Health

- ❖ Yoga not only maintains but improves our health .
- ❖ Muscles becomes more strong .
- ❖ Various system of body like respiratory , circulatory , nervous , excretory etc. becomes more efficient resulting improvement in over all health.



Importance of Yoga

12. Enhances Moral and Ethical Values

- ❖ Yoga is very significant for human being in present-day life.
- ❖ By following first two steps of Ashtanga Yoga : Yama and Niyama (Ahimsa , Satya , Asteya , Santosh , Tapa etc.) these values are enhanced.
- ❖ An individual can attain perfect health and lead a content life by performing yogic exercise daily.



Brief History of Yoga

- ❖ Evidences shows that history of Yoga is related to the Indus Valley civilization (3300- 1300 BC).



- ❖ Yoga is also mentioned in Upanishads, Mahabharata & Ramayana.
- ❖ Maharishi Patanjali gave Yoga Sutra around 147 B.C.



యోగాతో మానసిక ఒత్తిడి దూరం

మహబూబాబాద్ రూరల్, ఫిబ్రవరి 9: యోగాతో విద్యార్థులు శారీరక మానసిక దృఢత్వం పెరిగి మానసిక ఒత్తిడి దూరమవుతుందని ప్రభుత్వ డిగ్రీ కళాశాల ప్రిన్సిపల్ విజయలక్ష్మి అన్నారు. బుధవారం కళాశాల ఆవరణలో విద్యార్థులకు యోగా తరగతులు నిర్వహించారు. ఈ సందర్భంగా ప్రిన్సిపల్ మాట్లాడుతూ ఆంగ్ల విభాగం, జాతీయ సేవా పథకం, మహిళా సాధికారత విభాగం, వ్యాయామ విద్యా సంయుక్తంగా యోగా ఏరోబిక్స్ లో సర్టిఫికేట్స్ కోర్సు కళాశాలలో ఉండన్నారు. అధ్యాపకురాలు సుమలత ఈ శిక్షణ తరగతులను నిర్వహిస్తారని అన్నారు. ఈ కోర్స్ ను ప్రతి విద్యార్థి సద్వినియోగం చేసుకోవాలని సూచించారు. అధ్యాపకులు పాల్గొన్నారు.



BEAUTICIAN
CERTIFICATE COURSE
DURING THE ACEDEMIC YEAR 2020-21



Organized by
DEPARTMENT OF HINDI & TELUGU
GOVT. DEGREE COLLEGE
MAHABUBABAD -506101.

IMPORTANCE OF CERTIFICATE COURSES:

09-11-2021

Inaugural session of Beautician Course on 09-11-2021.



Hair Cutting



CERTIFICATE COURSE ON BEAUTICIAN

IMPORTANCE OF CERTIFICATE COURSES:

Due to increase in competition in various areas like Finance, Information Technology, Engineering, Medicines, Project, Management, Teaching, Marketing etc., getting a certificate course has become necessary for a student to stand ahead of others in competition.

MAIN AIMS OF THIS COURSE:

- Beautician courses are most career secured.
- Beautician course would be able to find a job always.
- In India it is 3 times faster than America and Europe.

- The career in Beauty and Cosmetology will always have a abundance of scope in a lot of fields.
- A beautician course would guarantee you *good paying jobs*.
- People will always have plenty of options to succeed in this industry.

COURSE OUTCOMES:

- Freedom of creativity.
- Never ending learning.
- High-end clients.
- Offer psychological support and builds self-confidence.
- Beauticians are social and friendly with a responsibility of making people feel good about themselves.
- The beauty industry provides plenty of job opportunities.

Attendance Register of the students participated in Beautician Course.

The image shows an open attendance register. The left page is titled 'Attendance Register of' and 'Year/Class'. It contains a table with the following columns: Roll No., Name of the Student, and Year/Class. The right page is a grid for recording attendance, with columns for dates from 1st to 30th. There are handwritten signatures and a purple stamp on the right page.


Record of student signature

S.No	Name	Group	Sign	S.No	Name	Group	Sign
1)	A. Lavanya	Bsc (MPC) 2 nd year	[Signature]	19	G. Akhila	II nd year (MPC)	G. Akhila
2)	S. Rajeshwari	Bsc (MCC) 1 st year	S. Rajeshwari	20	M. Malleshwari	M. Malleshwari
3)	M. Prathiyasha	BSC (MCC) 2 nd year	M. Prathiyasha	21	M. Anand	B.A. III rd year	[Signature]
4)	SK. Manisha	BSC (BZC) 1 st year	sk. manisha	22	B. Bhargya Soti	B.Z.C I st year	Bhargya Soti
5)	N. Kamadevi	B. Com (C.A) 1 st year	N. Kamadevi	23	M. Pravalika	Bsc (MPC) 1 st year	M. Pravalika
6)	S. Ravi	B. Com (C.A) 1 st year	S. Ravi	24	A. Namini	B.A 2 nd year	Namini
7)	T. Saritha	B. Com (C.A) 1 st year	T. Saritha	25	C. Pravalika	B.A 2 nd year	C. Pravalika
8)	K. Likhitha	Bsc (MPC) 1 st year	K. Likhitha	26	A. Bhumika	B.A 2 nd year	A. Bhumika
9)	M. Sahithi	Bsc (MPC) 1 st year	M. Sahithi	27	sk. Reshma	BA 2 nd year	sk. Reshma
10)	M. Rachana	B.Sc (BZC) 1 st year	M. Rachana				
11)	P. Nayya	B.Sc (MPC) 1 st year	[Signature]				
12)	H. Kamya	B.Sc (MPC) 1 st year	[Signature]				
13)	B. Bhargya Soti	B.Z.C 1 st Year	Bhargya Soti				
14)	E. Nayya	B.Z.C 1 st year	Nayya				
15)	M. Vineetha	Bsc (MPC) 1 st year	Vineetha				
16)	G. Prithvika	B.A 1 st year	G. Prithvika				
17)	M. Nagulmeera	Bsc (MPC) 1 st year	M. Nagulmeera				
18)	M. Spandana	B.Sc (MPC) 1 st year	M. Spandana				

Dr. V. Manjula
Kannada Institute

R. Rattamala
Asst. Prof. of Telugu

V. Vijaya Lakshmi



Hair Cutting



Mehdi Designing



Valedictory Ceremony of Beautician Course on 04-12-2021.

